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ABSTRACT

Although important financial sacrifices have been made in favor of education since the United Nations launched its first Development Decade in 1961, it seems increasingly difficult today to mobilize financial resources in proportion to the needs or the demand. The extension of schooling throughout the world is confronted with such constraints that the budgetary limitations of educational financing policies must be acknowledged. UNESCO's Division of Educational Policy and Planning has launched a preliminary inventory of innovative funding experiments carried out by member states. This document offers a synthesis of earlier national studies. Chapter 1 discusses the economic context of educational finance, focusing on major educational objectives (the total eradication of illiteracy and universalization of primary education); the major obstacle (greater than expected population increases in developing countries); rising costs; and educational financing problems exacerbated by the balance of payments deficit, the Third World's debt, unemployment, poverty, and famine. Chapter 2 discusses innovation problems, and chapter 3 describes the material, financial, and human resources for education. Chapter 4 discusses governmental and organizational structures and functions, and chapter 5 examines the school's output in relation to resource allocation. The last two chapters offer conclusions and recommendations for devising successful innovation projects. (38 references) (MLH)

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MOBILIZATION AND MANAGEMENT OF FINANCIAL RESOURCES FOR EDUCATION

(A SYNTHESIS OF A FEW CASE-STUDIES)

by Paul PERROT

(translated by André DAVOUST)

EA 022 904

Division of
Educational Policy
and Planning

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Unesco, Paris

S.137

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SUMMARY

This synthesis was requested by the Division of Educational Policy and Planning of Unesco in order to provide an inventory of a wide-ranging series of innovative experiences in the financing of education carried out by Member States and reported to Unesco over a period of two years (1985-1986).

Due to the "geographical heterogeneity" and "wide field of experiences covered" as well as the varied factors and "unrelated parameters" which appear in the studies, the author set himself as an overall objective to report on the interest each country has shown in the activity described, whatever the coverage or result of the activity, declining any attempt at value judgements. He describes the hypothesis which in each case preceded the decision to carry out the national activity, and frequently provides an analysis of the economic, financial and, sometimes, the socio-cultural and political factors which influenced the activity.

This synthesis provides us with a systematic approach for analyzing the impact of certain innovative strategies for mobilizing finances at the point-of-entry, throughout (the administration) and at the point of exit (external inputs) of the educational system. The innovative experiences, therefore, cover methods to improve internal management and present ways of obtaining external financial inputs to education.

The author draws up a series of recommendations which, as he himself states, mainly "review or further develop the conclusions arrived at in the national documents." Some pertinent observations on the activities in question are nevertheless offered.

RESUME

C'est à la demande de la Division des Politiques et de la Planification de l'Education de l'Unesco que cette synthèse a été entreprise pour faire l'inventaire d'un vaste ensemble d'expériences novatrices dans le domaine du financement de l'éducation, vécues par des Etats membres et communiquées à l'Unesco sur une période de deux ans (1985-1986).

En raison de "l'hétérogénéité géographique" et d'un "large champ d'expériences traitées" ainsi que des divers facteurs et des "paramètres incomparables" qui figurent dans les études, l'auteur s'est donné comme objectif global de montrer l'intérêt que chaque pays a exprimé pour l'activité décrite quels que soient l'étendue ou le résultat de cette activité, tout en se refusant à un quelconque jugement de valeur. Il présente l'hypothèse qui pour chaque cas a précédé la décision de mettre en oeuvre cette activité nationale, et fait souvent l'analyse des facteurs économiques, financiers et parfois socio-culturels et politiques qui ont eu une incidence sur cette activité.

Cette synthèse nous apporte une approche systématique pour analyser l'impact de certaines stratégies novatrices de mobilisation des ressources "au stade des entrées", au stade administratif et "au stade des sorties" (ressources externes). Donc, les expériences novatrices comprennent des méthodes d'amélioration de la gestion interne et présentent de nouveaux moyens pour obtenir des ressources financières externes pour l'éducation.

L'auteur formule un ensemble de recommandations lesquelles, comme il l'affirme lui-même, reprennent ou développent davantage les conclusions auxquelles aboutissent les documents nationaux. Cependant il a fait des observations pertinentes sur les activités en question.

FOREWORD

Although important financial sacrifices have been made in favour of education since the United Nations launched the first Development Decade in 1961, it seems increasingly difficult to-day to mobilize financial resources in proportion to the needs or the demand. The extension of schooling - and more generally of education - is confronted throughout the world with such constraints that one has come to realize the limitations - at least the budgetary ones - of educational financing policies.

In view of the considerable needs that have yet to be met, one of the aims of the Second Medium-Term Plan, and more specifically, of the Fourth Major Programme of Unesco (Formulation and Application of Education Policies) is "to ensure the mobilization and use of the human, material and financial resources for the development of education". More precisely, the third sub-programme (Resources for Education) aims at "contributing to a better knowledge both of the problems related to the mobilization and optimal use of the resources, and of the experiments that have been or are being made in that field, through a broader exchange of information and through studies, particularly on the cost and financing of certain recurrent expenditures, on the mobilization of resources in kind and the optimal use of all resources". (1)

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(1) Programme and Budget approved for 1986-1987 - Unesco, Paris, 1985.

Having that in mind, the Division of Educational Policy and Planning of Unesco has conceived and launched a preliminary inventory of the innovative experiments carried out in that perspective by Member States. This document tries to offer a synthesis of the numerous national studies carried out earlier.

The views expressed in this document are those of the author or of those who have been quoted, and do not necessarily reflect the views of Unesco.

INTRODUCTION

The bibliography in the annex is evidence of the heterogeneity, at least geographical, of the documentation selected for this study. A similar diversity is to be found in the wide field of experiments covered, which range from the participation of enterprises to that of local communities, from fiscal reforms to self-financing, from functional re-organization to technological innovation. If one takes the view that the interpretation of such experiments implies at least a rudimentary knowledge of the economic, social, political, cultural and historical backgrounds in which they took place, one will easily realize how difficult it has been to extract a coherent set of rules and principles from the mass of studies, reports and recommendations analyzed here: far too many factors and unrelated parameters, as well as too great a diversity of backgrounds, are involved. Each experiment has its own specificity and striving at all costs to define common characteristics which may exist, would entail confining oneself to meaningless generalities.

A second difficulty arises as soon as one attempts to classify or group together such varied experiments in order to arrive at a synthesis. The distinction between the mobilization of additional resources and the optimal use of available resources may sound attractive, and is no doubt indispensable, given the degree of abstraction at which one must situate

a global view of what lies behind the question of how education is financed. However, the apparent logic hardly stands up to analysis as soon as one endeavours to grasp their full complexity and situate in their national or local contexts, the actual problems with which the teacher or the administrator is confronted in the field. The mobilization, collection, allocation, commitment and expenditure of funds are all part and parcel of an uninterrupted decision-making process aimed at one single objective. The fact that financing is a whole is perfectly illustrated by Professor Lakadwala (1) when he states that "the mobilization of new resources for education and the optimal use of the available resources are only two sides of the same coin".

Finally, a study of the problems encountered in the field while experimenting on various educational financing procedures brings to light two very different categories of difficulties: on the one hand, those related to insufficient resources or to the rationale of their management, and on the other hand those brought about by the novelty of the decisions involved. Such experiments are bound to be innovative, and innovation is bound to have an unsettling effect. The importance given to these difficulties in the national studies thus leads to a duality of approach to the problem, which is to be seen less as the interaction between mobilization and management than - more predictably - as the interaction between financing and innovation.

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(1) Professor Lakadwala: Mobilization of resources. Quoted (page 76) by C.B. Padmanabnana (Bibliography No.18).

Consequently, it was possible to build up a synthesis around a systemic concept by grouping together the different interventions/innovations according to their impact at the point of entry, throughout or at the point of exit of the educational system, without overlooking either the continuity or the coherence of the different stages of the financing. According to the plan derived from this systematic approach, the first two chapters deal essentially with the general problem of financing (Chapter I) and of innovation (Chapter II). The national experiments are then analyzed according to their logical insertion into the system, namely the "inputs" or the material, human and financial resources (Chapter III), the structures and functions of the administration, of the institution or of the community involved (Chapter IV), and finally the "outputs" of the system, that is everything related to its external efficiency (Chapter V).

Although all experiments deserved mentioning, the framework - as well as the objective - of this document, has necessarily imposed a very limited choice. The only criterion for selection has been their interest to the proposed synthesis, regardless of their size or their results. It was not for the author to decide on the validity of any particular experiment or to question its significance. Therefore this study confines itself to taking stock of the explicit or implicit assumptions of the decision-making processes, and to analyzing the economic, financial and, occasionally, social, cultural or political fall-out, whenever the reference document has made this possible. The limitations of this analysis lie in the fact that many experiments are still under way,

others have not in any way been assessed, and when an evaluation has been made, it can rarely be extrapolated.

A similar didactic concern for clarity and objectivity has been paramount in drawing up the recommendations put forward in the last chapter. They review or develop mainly the conclusions arrived at in the national documents and are therefore not to be seen as recommendations stricto sensu but as a set of generally agreed-on suggestions based on the documentation. These suggestions, which are intended as much for decision-makers as for donors or for the beneficiaries themselves, will probably contribute to widen the debate on educational financing.

N.B. The literature is abundant and constant references have had to be made to the various sources used, these references being all the more frequent since the same documents and sometimes the same experiments can be mentioned several times. In order to avoid making this study unduly cumbersome, it has seemed preferable to give for each reference only the country's name and occasionally the author's, followed by the number assigned to the document listed in the bibliography.

I. THE ECONOMIC CONTEXT

1.1 The major educational objectives

A series of Regional Conferences of Ministers of Education organized by Unesco from 1960 to 1970 contributed in the working out of a doctrine and a strategy to meet the most acute and insistent demand ever for education. These meetings led to a greater awareness of the alarming gap between industrialized and developing countries, as well as to the realization of further needs arising from multifarious and converging needs. The regional objectives which reflected the optimism of the 1960s were ambitious, particularly in terms of enrolment ratios. In Karachi (1960), Addis Abeba (1961), Santiago (1962), Tripoli (1966), the states concerned set themselves a twofold objective: first, primary education was to be universalized and made free and compulsory by 1980 at the latest (in 1970 in Latin American countries); second, the fight against adult illiteracy was to be considerably intensified.

It would not be relevant here to go through the different stages of this international mobilization or to survey the various phases of a dramatic, though at times uneven, expansion. The national strategies have not always come up to expectations, being too often based on a linear projection of the growth of the school population, on the

priority given to the development of conventional school systems and, sometimes, on an underestimation of the necessary resources.

Although undeniable progress has been made from the quantitative point of view, a more diversified approach was soon felt to be essential in order to make up for the weakness of the initial proposals. More important still was the general slowing down of the expansion process itself in the early seventies, the "world-wide educational crisis" having preceded the economic one.

Today, the latter crisis is making the problem of educational financing even more sensitive, compelling certain countries to postpone the objectives of the sixties until later. By way of example, the "Asia-Pacific Programme of Education For All" ("APPEAL"), launched in February 1987 at the request of the Fifth Regional Conference of Ministers of Education and Those in Charge of Economic Planning in Asia and the Pacific, adopted - with the necessary adjustments - the objectives that had been set in Karachi, namely the total eradication of illiteracy and the universalization of primary education; there was a major difference though: the deadline was put back to 2000.

However, this rescheduling of ambitions, which mainly shows how determined international concertation can be, should not overshadow the importance of what has been achieved so far.

1.2 The results

One of the major obstacles to a higher enrolment ratio has been a generally greater increase in population than had been anticipated. The world population rose from 3 billion inhabitants in 1960 to an estimated 5 billion in 1970 but the evolution varied very much from one continent

to another. The most striking gap is the one between the growth of the developed and developing countries (1):

	1970	1984	Index
	(inhabitants in millions)		
World	3,693	4,757	129
Developed countries	1,053	1,178	112
Developing countries	2,641	3,579	136

This gap is even more obvious if one considers the two age brackets of the primary school population, that is children from 5 to 9, and 10 to 14 years (2).

		1970	1985	Index
		(inhabitants in thousands)		
Developed countries:				
	5-9	96,081	88,279	92
	6-14	96,222	89,476	93
Developing countries:				
	5-9	362,556	434,737	120
	6-14	306,860	431,630	141

(1) Mid-year population estimation. See Table 1.1 in the Statistical Yearbook of Unesco, 1986.

(2) See Table 1.2 (ibid.).

The developing countries were therefore confronted with a formidable challenge and their achievement, in spite of the slowing down mentioned earlier, is quite impressive, as can be seen in the evolution of gross enrolment ratios for each education level between 1960 and 1985 (1).

%		Primary Level	Secondary Level	Tertiary Level
World:	1960	80,7	27,5	5,2
	1985	98,8	46,3	11,8
Developed countries:	1960	101,5	62,1	13,3
	1985	102,3	87,9	33,1
Developing countries:	1960	72,8	15,1	2,0
	1985	97,8	37,7	6,4

The difference in the rate of increase is even more obvious if one considers the index-related evolution of the entire school population (2). Taking 100 as a base in 1970, the figures for 1984 can be easily calculated:

Entire school population of the world:	143
Entire school population of developed countries:	102
Entire school population of developing countries:	179

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(1) See Table 2.10 in the Statistical Yearbook of Unesco, 1986.
(2) See Table 2.6 (ibid.).

The latter index itself covers very different realities. If, for instance, one focuses only on Africa (1), the figures for the same period are as high as 281 (entire school population), 579 (secondary education) and 616 (girl population).

The following two examples will contribute to a fuller appreciation of the scale of the problems raised by the population increase and will give a comparative view of the size of a school population in relation with the size of the country considered.

(NEPAL - 26): In 1951, Nepal had only 321 primary schools with a total of 8,550 pupils, 11 secondary schools totalling 1,680 pupils and two higher education institutions numbering 250 students, for an estimated 8,5 million inhabitants. Twenty years later (in 1971) the number of primary schools had risen to 7,256 with a total of 450,000 pupils, there were as many as 1,665 secondary schools with 1,000,000 pupils and 49 higher education institutions were accommodating 171,000 students.

(INDIA - N.I.E.P.A.-18): A case-study of India's financial problems provides us with the following table of the comparative increases in the school population for each education level between 1950-1951 and 1981-1982.

---

(1) Excluding Arabic-speaking States.

	1950-1951	1981-1982	Index
Primary education	18,678,000	69,602,000	373
Intermediate education	3,330,000	17,988,000	540
Secondary education	1,481,000	8,172,000	552
Higher education	87,000	206,000	237
Post-University education	16,000	26,000	163

The same study emphasizes how different the growth of the school population can be as reflected in the progression of costs, the average annual increase varying from 9% in West Bengal to 14,5% in the State of Kerala.

Such an explosion was bound, for want of thorough monitoring, to generate a few imbalances and to meet with a few setbacks. First, universal education is still a far cry. In spite of the dramatic rise in gross enrolment ratios for each education level, the increase in age-related enrolments shows that developing countries have still a long way to go (1):

%	6 to 11-year-olds	12 to 17-year-olds	18 to 23-year-olds
1960	47,5	21,1	3,8
1985	72,7	46,6	13,7

---

(1) See Table 2.11 in the Statistical Yearbook of Unesco, 1986.

Similarly, in spite of their numerical progression, girls accounted only for 43% of the overall school population in 1984, as against 40% in 1970.

Serious and enduring disparities, unsuitable educational structures, limited internal or external effectiveness, anachronic and inadequate programmes, all these problems - which are part and parcel of an all-pervasive shortage of funds - are both the consequence and the cause of the financial difficulties analyzed in the financial documents.

1.3 The costs

The evolution of expenditures flows naturally from the number of enrolments, but the former have in fact risen far more quickly, as can be seen in the following evaluation of public expenditures earmarked for education (1):

(U.S. dollars in million)	1970	1984	Index
World	159,900	651,171	407
Developed countries	145,444	556,277	382
Developing countries	14,456	94,894	656

---

(1) See Table 2.12 in the Statistical Yearbook of Unesco, 1986.

Absolute values are expressed in current prices and are therefore distorted by inflation. They do however enable one to compare the trend of each group's index for the period under review. The figures for 1984 (base 100 in 1970) are respectively 407 for the whole world, 382 for developed countries and 656 for developing countries.

Among the factors which have weighed most heavily on the educational budgets of this last group, mention must be made of the development, at a rate far outstripping that of the growth of the overall school population, of the most costly levels and types of education: secondary and higher education, and in particular technical and vocational courses.

Cost reduction very soon appeared as a prerequisite for future progress, but in this respect planners have never had much room for manoeuvre. Unit costs in constant prices mainly vary with pupil-teacher ratios, with the qualifications, seniority and actual salaries of the teaching and administrative staffs. In view of the proportion of the wage bill in educational budgets (1), one might feel tempted to seek to reduce overall expenditures by working on these factors, but then the decision-maker would be confronted with a dilemma: the impossibility of choosing between the requirements of quantitative expansion and those of good educational standards.

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(1) In 1985, 36 out of 146 countries earmarked more than 80% of their education budgets for the mere remuneration of their teaching staff, 8 of them bringing the proportion to 90% (See Table 4.2 in the Statistical Yearbook of Unesco, 1986).

"As regards the non-salary-related part of current budgets, it often constitutes such an insignificant proportion of global spending that, for the sake of effectiveness, it should on the contrary be increased."

Besides these factors of increase in unit costs, other parameters contribute to the growing cost of a pupil's complete schooling. In this respect, the Conference of the Education Ministers of the French-speaking States, which was held in Thiès (Senegal) in 1986, placed the emphasis on the consequences of resource mismanagement:

> (SENEGAL-5): Among the key factors that were mentioned, are to be found, inter alia, the fact that curricula are not relevant to the environment or to the needs of the productive sector, that the level of achievement is low, particularly in primary education, that insufficient utilization is made of teachers' potential as well of premises and equipment, that maintenance is inadequate and finally that the system by which scholarships for study abroad are allocated is deficient in that they are either massively granted to students taking courses that are available in their native countries, or insufficiently geared to the targeted specialities of the beneficiaries on their return.
>
> The Conference stated the problem of educational financing as follows: "... for all the joint efforts of States, organized communities and families, educational financing has reached limits which can hardly be exceeded with regard to the twofold objective of universalizing primary education and of maintaining good teaching standards".

1.4 The problems of educational financing

It is not within the terms of reference of this study to look into the effects of the world-wide economic depression, but one cannot consider the problems of educational financing and the dramatic plight of some of the less advanced countries, without situating them first within the context of the international crisis and without at least mentioning a few major difficulties, such as the balance of payments deficit, the Third World's debt (which a recent publication of O.E.C.D. and of the Bank for International Settlements puts at more than 1,000 billion dollars), unemployment, poverty and the distressing paradox of famines in a period of overproduction.

Educational planning is necessarily part of a long-term process: but the financial obstacles that, until recently, one had managed to overcome and which were the consequences of conjunctural imbalances, are now reflecting more enduring trends. This is a completely new state of affairs which financing strategies must take into account.

As regards foreign aid, this issue will not be further dealt with in this document - except for the points concerning the effects of the current crisis analyzed by C. Soumelis, among these being the low-priority treatment meted out to education by the multilateral organizations, the siphoning off of foreign funds towards the most productive sectors, especially in the less advanced countries, the fact that the beneficiaries have too limited a capacity of absorption and finally the risk of increasing, through extra external contributions, the burden of recurrent costs (C. Soumelis-25).

Therefore, the possibilities provided by bilateral or multilateral aid cannot be fully taken advantage of until education and training have been developed by drawing on the limited funding of national resources.

A few data (drawn from illustrative tables in an article by Louis Emmerij (1)) will help us to appreciate the effort which will have to be made by the most deprived countries. The real per capita income expressed in dollars at the 1981 exchange rate is estimated as follows:

	1960	1980	1984	Index (base 100 in 1960)
O.E.C.D. countries (taken as a whole)	5,304	9,685	10,220	193
Developing countries (taken as a whole)	391	724	729	186
Less advanced countries (taken as a whole)	138	165	166	120

For certain countries, these overall data correspond to a negative average annual increase rate of per capita income for the 1980-1984 period (-2.5 for Africa and -2.6 for Latin America).

---

(1) The distribution of revenues between nations, in "L'Observateur de l'O.C.D.E.", November 1986.

They should be compared with the average per capita expenditure, as calculated from the public expenditures which were earmarked for education in 1984 (1). Although these expenditures are expressed in current prices, the differences with the incomes mentioned earlier are so considerable that the comparison remains valid:

(U.S. dollars)

World	141
Developed countries	514
Developing countries	27

Taken as a whole, the part of the G.N.P. allocated to educational expenditures progressed from 1970 to 1984, rising from 5,2 to 5,7 for the world as a whole, from 5,7 to 6,1 in developed countries and from 3,0 to 4,0 in developing countries (2). But owing to the recession, the role of education in economic development is being questioned and national priorities are being reordered either in favour of economic sectors regarded as more immediately financially viable, or for long-neglected social sectors.

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(1) See Table 2.12 in the Statistical Yearbook of Unesco, 1986.

(2) Ibid.

(PAKISTAN-8): Dr Abdul Ghafoor, after pointing out this competition by other sectors, stresses that a similar competition is at work within the educational system itself, between the different types and levels of education.

By way of example, he shows how the rise in primary education expenditure during the 1970-1978 period was detrimental to both secondary and technical education, and how primary education funding had to be brought down to between 4 and 5% in the latest five-year plan.

(BANGLADESH - N.I.E.P.A.-15): In Bangladesh, education acccounted only for 4,05% of the total of the Government's expenditure during the 1973-1982 period. The reason for this low percentage lies, there again, in the priority given to other sectors, but even more, in certain previous educational failures. Even though education is duly acknowledged as vital to economic growth, the difficulties arising from the attempted universalization of primary education, the high wastage rate and the unemployment of graduates, feature among the causes of the rising opposition of public opinion to bigger education budgets.

As shown in the examples below,which have been restricted to a few selected from those quoted in this document, the reordering of priorities has greatly varied from one country to another.

Some education budgets have become relatively more important (as in Morocco and Venezuela), others have remained constant (as in Finland), but more often than not, the part of regular education expenditure within regular governmental expenditure has been markedly reduced (1):

%			
	Kenya	1975: 27,7	1984: 20,8
	Morocco	1975: 20,4	1983: 27,4
	Nigeria	1976: 27,3	1983: 16,2
	Tunisia	1975: 22,5	1982: 20,4
	Panama	1975: 31,6	1984: 17,8
	Guyana	1975: 14,9	1984: 8,9
	Venezuela	1980: 24,3	1983: 39,1
	India	1975: 15,1	1981: 13,7
	Philippines	1975: 13,8	1984: 8,0
	Finland	1975: 14,3	1983: 14,3

Many countries thus appear to be facing financing difficulties - at least with regard to their education bugdets - while huge needs have yet to be met. As explained in Keith M. Lewin's very clear account of the situation (2), the resources allocated by governments to education are limited on two fronts: firstly, by the constraints public expenditure as a whole is subject to, with as a result a reduction in the size of the "cake" education is to have a share of and, secondly, by the priority attributed to education itself in national budgets.

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(1) See Table 4.1 in the Statistical Yearbook of Unesco, 1986.
(2) Education in Austerity: Options for Planners, IIPE/Unesco, Paris, 1987.

New forms of resources will therefore have to be drawn upon and they will no longer be expressed in budgetary terms but in terms of financial, material and human needs mobilized by and for the whole community, the price for this often being the shelving of conventional schemes or a painful reappraisal of priorities. Moreover, no effort will need to be spared to fight waste and to make the best possible use of all available resources, whether traditional or additional ones. One major point will have to be kept in mind however, which is that, any alternative mode of financing or any measure aimed at making management more effective, is necessarily of an innovative character, and will imply overcoming man's built-in resistance to change as well as the inertia generated by all systems.

II. THE PROBLEMS RAISED BY INNOVATION

2.1 Change and innovations

Among the experiments presented in this document, many came up against unexpected obstacles, not so much because of the paucity of resources as of the innovative character of such actions. Whatever the cause, be it the sporadic flow of information between the decision-making centres and the grass-roots (Morales-14), the discrepancies between certain national objectives and the aspirations of a community (Papua-New Guinea-21), the fear among teaching staff they will to have to relinquish some of their privileges (Phillipines-20), the delays in the implementation of plans (Tanzania-6), staffing instability (Pakistan-7) or lack of training (Benin-10) - most of the difficulties encountered betray insufficient expertise or an instinctive resistance to change..

Both the concept of development, which means growth and diversification, and the very purpose of educational systems, which is to modify an economic, social and human environment dependent upon their own resources, are inseparable from change provided this change is not counterproductive, as is sometimes the case. Although the evolution of educational systems is often not perceptible in the short term, it may bring about imbalances which come to light belatedly in periods of hardship.

The mastering of change, which implies the passage from passive to active change, derives primarily from the flexibility of the system

and of the steps taken to make it constantly adjustable, which range from regulatory or innovative measures to comprehensive or partial reforms. This control necessarily implies a total commitment to the overall coherence and ultimate aims of the system and has to take into account the attitudes of rejection induced by such innovation, through using the time factor. In this way, steps are taken which help overcome human inertia through information, thus paving the way for change through training, while following an ordered process of innovation through a stricter monitoring of its different phases, from experimentation to generalization. It boils down actually to reconciling the requirements of rigourous planning with the necessity of a swift action geared to a state of crisis. In this respect, monitoring change is part and parcel of long-term planning.

2.2 The problems pertaining to innovation

The innovative experiments related to the mobilization or management of educational resources often take place in particularly tense conditions likely to affect them adversely all along the line, from the decision-making stage to that of implementation and even of evaluation.

2.2.1 Awareness of the existence of a critical situation.

The necessity for innovation in the field of financing arises in all sorts of emergencies, but the economic factor must always be

reckoned with, and the awareness of a fresh need is always linked to the realization of the inadequacy of conventional modes of financing. From this point of view, the case study proposed by Thailand is exemplary:

> (THAILAND-24): Even if certain projects originate in provincial or local imbalances, they all come down to the same problem of how to assign or manage resources in times of financial straits.
>
> The financing system is a standard one. It gives priority to modern budgeting techniques (P.P.B.S.) and thus represents quite a valuable planning instrument. The part of education in the national budget remained stable between 1975 (19,82%) and 1982 (20,10%), but the economic growth recorded in recent years has not been strong enough to meet the education demand. The balance of payments deficit and the country's dependence on foreign assistance have helped realize the need to diversify education funding sources (in the 5th National Education Development Plan covering the period 1982-1986) and to take up the slack in the services whose economic and social efficiency had been in doubt. It is within this context that several innovative experiments have been launched and if their objectives are varied (improving school funding methods, reducing disparities, etc), they share the same concern: controlling and reducing educational costs.

Not all innovations are brought about by concern over financing though, as can be seen in the partial self-funding experiment that was conducted in Benin. Here, the will to explore new avenues rested on the acknowledgement of a failure and of the contradiction between the educational objectives and the social and cultural aspirations of a community:
(BENIN - I.N.F.R.E.-10): The document, which was prepared by the National Institute for Educational Training and Research, has this to say about the genesis of the experience: "When the country became independent in 1960, it failed, in spite of the determination of the authorities, to adapt the then prevailing type of colonial school to the national realities, merely giving itself a refurbished version of it. It is from this acknowledgement of failure that several school reforms were to spring, the latest and the most decisive of which was initiated in 1973".

According to a 1975 decree, "the new Benin school is the driving force behind the economic and social development as well as a means of collective salvation, ensuring the participation of all in production".

Schools are upgraded to become school cooperatives, but the main thrust of the reform is towards pedagogy; as stressed in the I.N.F.R.E. document, the self-financing objective only comes second: "The main objective of the production units is to introduce pupils to productive work; its main function is thus to educate the young; then comes, as a corollary, the possibility of achieving a certain output which will help solve

some of the financial or material problems of education".

Another partial self-funding scheme is presented by the Vietnamese National Commission for Unesco. Although the texts on which the reform is based refer to the manpower potential represented by teachers and pupils and to the economic obstacles which stand in the way of bigger budgets, they are none the less the expression of an educational principle and of a political target clearly stated in article 40 of the Constitution of the Socialist Republic of Vietnam, namely to mould the revolutionary generations of the future (Vietnam-28).

2.2.2 The decision-making process.

In most of the cases studied, the innovations in educational financing originate from a decision of the State or its provincial or local representatives. But the nature of the resources drawn upon, which in the experiments analyzed here are bound to be extra-budgetary, allows for widely diversified initiatives, a process further stimulated, as can be expected, by decentralization. The most frequent paradigms correspond to three types of situation in which the State is not alone in the decision-making process:

- Firstly, the initiative may rest with an organization independent of the State (a firm, a foundation, an association) and develop within the legal framework of pre-established agreements;

- Secondly, the State may, in a situation of crisis, delegate part of its responsibilities to a body set up by the community, like Parent Associations, as is the case in Mali:

(MALI-5): "... In response to the State's wish to delegate part of its power, parents of pupils from villages and urban centres pooled their forces in order to set up associations whose goal at the time was to collect funds through subscriptions, thus providing their areas with school facilities and paying for various classroom materials, a role the State was no longer able to fully assume".

- Thirdly, especially in countries with a well-established tradition of grass-roots participation, the initiative may rest with the community, even though it is likely to forfeit its original spontaneity to be later taken over or organized by the State.

The problems posed by the raising or managing of extra-budgetary funds vary with the nature and the importance of the decision-making centres. With regard to the experiments launched and carried out by the State, the difficulties involved are, or may be, ascribed to:

- the lack of firmness of certain decisions dictated by emergency which, for want of serious political commitment, fail to mobilize both the administrative apparatus and public opinion, and are finally undermined by opposition or indifference;

- the lack of follow-up decision and the lack of consistency in the allocation of responsibilities when a political change leads to a re-assessment of national objectives and priorities.

Finally one is led to wonder to what extent the State can foster or thwart the community's initiatives. This question was raised in 1985 during a regional workshop set up by the Commonwealth Secretariat (Botswana - Commonwealth-4) but the experiments that were analyzed on that occasion are not conclusive.

2.2.3 Implementation problems.

A review of the reports of the experiments permits us to draw up a fairly complete list of the usual difficulties arising during the conception, programming, and execution of any given project. Among them, two issues are particularly relevant to the general problem of innovation.

The first one is related to the distribution of responsibilities and to the possibility of friction between the administration and the community. It goes without saying that any particular demand stands a better chance of being accepted by the collectivity if the latter is involved in the venture. On the other hand, if the community is not, or only rarely left to take decisions on its own, then a brake may be put on the movement or a damper on its enthusiasm.

(KENYA-1): In Kenya, for instance, besides State-run, grant-aided or private schools, community schools (Harambee Schools) have been set up by the community on its own resources. The Harambee movement, which was originally conceived as a response to the problems of poverty, has been rapidly developing since 1963 and has been gradually integrated into the governmental strategy of rural development, but in the process, the community movement has lost part of its autonomy.

When an educational project is put forward, the committee representing both parents and teachers plays a key role in the wording of the development objectives and in the drawing up of the financing programmes, but at the planning stage, the administration weighs more and more on decisions which local officials are now legally entitled to enforce (Chief's Act).

Any compulsory form of contribution is even more likeky, obviously, to generate conflicts. Quite frequently, the appointment of teachers is contingent upon the community's agreeing to provide the site, to build and maintain the school and to assume responsibility for staff accommodation. If a financial contribution is imposed on top of these constraints, be it enrolment fees or school fees, the situation further deteriorates and the smaller the taxpayer's part in the running of the school, the greater the tension.

(PAPUA-NEW GUINEA-21): In Papua-New Guinea, the complex tax-system is variably adhered to by a heterogenous population made up of different tribal and linguistic units and integrated only relatively recently into a modern economy. Fund-raising will sometimes even meet with a refusal when the teachers' attitudes or the pupils' scholastic achievements do not come up to the parents' expectations. Such irregularities are detrimental to the smooth running of the school and may compel the provincial administration to brandish the threat of closure if the community does not comply with the regulations.

The necessarily innovative character of all experimentation leads to further difficulties. On the one hand, the time requirement for an experiment to be rationally carried out is often too long, given the pressing needs and the lack of stability of institutions. On the other hand, it may well happen that an experiment must be pursued - even when flawed from the start - given the risks that would ensue, were it to be discontinued. The programmes must therefore be flexible enough to allow for successive alterations. From this point of view, the IMPACT project (NIEAR-Bangladesh-15), which will be reviewed later, is a case in point: the continuous evaluation of self-teaching modules operating in small units has led to many alterations made possible by the built-in flexibility of the curriculum.

Finally, the planning of the extension and generalization stages cannot be based only and indiscriminately on the lessons of an experiment in its initial phase. Generalization is not to be equated with extrapolation. For instance, the extension of Pakistan's Experimental Pilot Project, Integrating Education in Rural Development (EPPIERD) might not have, according to Dr Abdul Ghafoor, all the multiplifier effects expected because the provinces failed to be properly informed from the start on how the experiment was being carried out (Dr. A. Ghafoor - Pakistan-7).

2.2.4 Evaluation problems.

It is also because of their innovative character that some experiments are difficult to evaluate. The usual control mechanisms are not always appropriate and all the information necessary to the implementation of a control and evaluation system is not available from the start for the proper planning of projects to be ensured. In his synthetic study of Latin American innovative experiments in local resource management, A.R. Morales insists on the possibility of spelling out, among the goals of pilot schemes, the precise nature of the data to be used in subsequent evaluations. In this respect, he emphasizes the importance of computers as the only means to process multiple data without raising the costs of a project (Morales-14).

The frequent lack of data accounts for the fact that case studies accord evaluation a low priority. Some experiments have still to be completed while others have not always made it possible to gather all the required data. Detailed financial evaluations, like, for instance, the calculation of the savings generated by the introduction of broadcast teaching (Thailand-24) and a fortiori the rigorous comparison of the results yielded by self-funding experiments carried out in different countries (R. Gillespie-9) are unfortunately few and far between. Furthermore, any financial evaluation is bound, at the international level, to come up against the practically insuperable obstacle of the different currencies and the differing periods of experimentation.

Finally, beyond quantifiable results, evaluation should try to determine the qualitative consequences of certain innovations. Many documents are evidence of a real interest in the new prospects such initiatives are opening and seem to herald a new departure, namely that a change in the components of the educational system can lead to a change in the objectives and sometimes in the ultimate ends of education.

2.3 The points of impact of innovation

In the document mentioned above, entitled "Reflections on the costs and the funding of primary education" (Senegal-5), the commission in charge of a survey of the extra-budgetary resources likely to be allocated to the promotion of primary education, puts forward the following list:

1° public institutions other than the State (local government);

2° re-allocation of funds in favour of education;

3° parents' associations;

4° families;

5° productive work of schools;

6° community work;

7° voluntary service;

8° sponsoring;

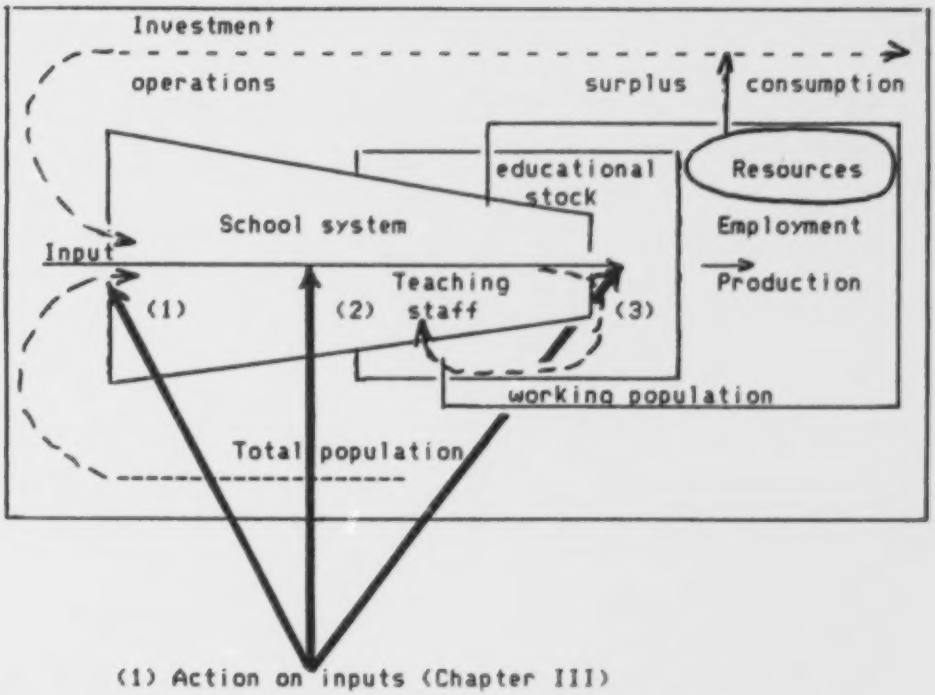
9° external assistance (donations);

10° private, denominational or non-denominational teaching institutions."

This enumeration shows in itself how wide the scope for research and innovation is. A greatly diversified international context, the specificity of each situation, the originality of the means involved as well as the ingenuity at work both in governmental or community schemes have further broadened the range of possibilities.

In accordance with guidelines proposed in the introduction, the innovative schemes will be analyzed in view of their impact on the educational system (See diagram, next page). Such presentation offers the advantage of situating each venture in a global context in which each initiative can set off interactions among the different parts of the system or reverberate, in sometimes unexpected ways, on the environment.

THE POINTS OF IMPACT OF INNOVATION



(1) Action on inputs (Chapter III)

(2) Action on structures and functions (Chapter IV)

(3) Action on outputs (Chapter V)

(Adapted from the graph entitled "Education systems and Society", in "Cours sur la planification de l'éducation", Breda, Dakar, 1971).

III. MATERIAL, FINANCIAL AND HUMAN RESOURCES FOR EDUCATION

3.1 Material resources

The preliminary studies carried out in Pakistan for the Primary Education Project (for the period 1979-1984), in collaboration with the World Bank lists the various factors underlying the slow pace at which enrolment in schools progresses, the excessive drop-out rate and more generally the poor quality of the education offered. The predominant factors are "poor physical facilities", "dilapidated school buildings" and the "dearth of instructional material and textbooks" (Dr. Ghafoor-Pakistan-7, p.24). Similarly, in a study on the financing of education in the States of Uttar Pradesh and Kerala, Dr. C.B. Padmanabhan stresses the fact that all five-year plans consider the development of physical facilities as vital for a strategy aiming at reducing regional disparities. As regards education, this priority finds its justification in the quantitative and qualitative insufficiencies of the educational network:

> (N.I.E.P.A.-Uttar Pradesh and Kerala-17): According to a recent study (the Fourth All India Education Survey), 190,357 primary schools out of a total of 474,634, that is more than 40%, and 15,934 middle schools out of a total of 112,404, that is more than 14%, are not provided with adequate material facilities. For want of proper premises, classes are held in makeshift huts, under tents and even in the open. About 36% of the primary schools are not provided with the minimum equipment, including blackboards, and they cannot even make up for the lack of chairs by offering pupils mats to sit on.

The state of these schools, most of them in rural areas, contributes to the lack of interest of the local populations and is an obstacle on the way to universal education.

The most recent studies on teaching conditions in developing countries and particularly in the less advanced countries show that such shortages are not exceptional. Crying needs, however, are not sufficient in themselves for priority to be given in national budgets to education when it comes to apportioning capital expenditure, so strong is the competition from other sectors.

3.1.1 Financing building projects.

Three solutions have been put forward: cutting back on need for new premises, seeking alternatives and diversifying the funding sources.

- Limiting the requirements:

In this respect, broadcast teaching programmes, an instance of which is offered by Thailand's Radio Correspondance Programme for Non-Formal Education and Distance Education (Thailand-24), generate considerable savings, insofar as the construction of expensive buildings can thus be by-passed, but they are very frequently oriented towards higher or non-formal education.

At the secondary level, the Moroccan experiment highlights the money-saving prospects opened by the functional re-organization of lower secondary schools.

(MOROCCO (1)): "The model tested is based on the streamlining of the school's pedagogic structure and of teaching schedules in order to ensure that:

- the pedagogic requirements are met;
- the teaching staff satisfy their service fully, without having to work overtime;
- the material facilities are used to their best advantage and that the number of pupils accommodated is increased, without any corresponding rise in costs.

In 1976-1977, only 29% of lower secondary schools respected the capacity norms for the use of premises (1,25 - that is 5 classes for every 4 buildings). In 1978-1979, the 127 establishments that had been re-organized were able, on average, to accommodate six classes for every 4 buildings (1,50), which represents a 20% increase in accommodation capacity. If one takes into account the size of these schools, it was possible, thanks to this streamlining, to accommodate about 650 extra classes, that is the equivalent of more than 500 buildings".

The problem of boarding-school costs has been tackled by Nigeria in a study on alternative solutions, the emphasis being put on the advantages of a rational school mapping programme.

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(1) Planification and reform of primary and secondary education, PNUD-Unesco, Rabat 1979.

(NIGERIA-3): In Nigeria, boarding schools are a legacy of the past. The ten state-run secondary schools dating back to the pre-Independence period, were boarding schools and were generally held as models on three counts: they were better run than other establishments, less expensive for parents (food was partly paid for by the Government) and long, costly journeys could thus be avoided. During the 1979-1983 period, however, the two objectives of free education and of a 100% transfer of pupils from primary to secondary education, together with the huge outlays these were to entail, gradually led to scrapping a formula deemed to be too great a burden on the budget of the State, and to converting boarding premises into classrooms. Those measures had such grievous consequences (including an increase in juvenile delinquency) that a movement towards their re-opening soon materialized. In order to trim the costs, several solutions are being put forward, such as the standardization of the buildings, the introduction of school-meals services and a bigger contribution of the parents towards the boarding costs. Concurrently, further measures aim at reducing the needs, among which an increase in the number of catering facilities, the re-organization of school-bus services, more sensible time-tables, and above all, a more efficient school-mapping programme that would ensure a rational delimitation of catchment areas and enable pupils to gain direct access to their schools.

- inter-sectoral collaboration:

In order to make up for the shortage of buildings, Pakistan has tried, as shown in the following example, pooling all the resources of the community.

> (PAKISTAN-7): The Experimental Pilot Project Integrating Education in Rural Development (E.P.P.I.E.R.D.) launched in 1977 in Pakistan by the Education Ministry in collaboration with Unesco, and re-organized under the name "Rural Education and Development Project" in 1985, is mainly oriented towards fighting illiteracy but it is also to be seen as a model of primary education in rural areas. The solutions that have been adopted resort only sparingly to the construction of expensive buildings. Among them, one of the most significant is the use, for the experiment, of mosques as education centres, with Imans acting as teachers for deprived children or for those living too far from conventional primary schools.

This experiment, steeped as it is in the long Islamic tradition of mosque schools, can be seen in a broader perspective as a good illustration of how beneficial inter-sectoral or community solidarity can be, even when the situation is not one of particular hardship. The possibility for the school system to draw upon all the resources of the community as a result is bound, of course, to open up the schools to other sectors and in some cases it may lead to the construction of multi-purpose premises. The interaction of the economic, social or political fields is particularly suited, in an integrated approach of development problems, to create an awareness both of common needs and of versatile resources and means.

(N.I.E.A.R.-BANGLADESH-15): In this respect, the Community Learning Centre programme of Bangladesh is a case in point. The primary schools involved (there were about 200 of them in 1985) are looked upon as education centres open to the whole community, regardless of age or social status. Therefore they may be used for all sorts of activities, either economic, social, cultural or religious.

Their primary target is to speed up the universalization of education and to ensure that no pupil leaves school until he or she has completed the normal five-year course of study, thus contributing to reducing social or regional disparities. But these establishments have other high-ranking priorities: to bring education into contact with the working community, to turn the school into an instrument of economic development, to improve hygienic practices, health conditions and production techniques, and finally to foster a general awareness of the benefits of self-help.

- Participation of local communities in the construction of schools

An instance of this has been given earlier in paragraph 2.2.3. This widespread procedure, which largely contributes to reducing capital budgets, is seen in many different forms. Direct municipal funding of building programmes - depending on the mode of contribution and on the degree of autonomy of local budgets - falls more or less within the domain of conventional financing systems. Labour contribution might just as well come under the heading "mobilization of human ressources". Experiments of this type however are best studied in a chapter on material inputs and on the financing of infrastructures.

A case-study on the participation of local communities in the financing of education in Guyana gives an accurate idea of the scope, as well as of the limitations, of such a formula:

(GUYANA-27): In 1968, the government issued a statement underlining the limitations of budget financing in the face of growing needs: existing schools were generally overcrowded and had to be extended, and new generations of school age children had to be accommodated, which meant some 6.000 extra places each year. As a consequence, the local authorities and the community organizations were called upon to take over nursery schools and kindergartens.

Between 1976 and 1983, a further 1,426 children found their way into nursery schools, thanks to the efforts of the communities. Regional authorities had their say in the choice of the sites and in the design of the buildings, but the land was often donated by individuals, religious communities and various associations. Similarly, building materials were often supplied at no cost, mostly by firms.

In the smallest communities and in rural areas with limited revenues, local participation is generally restricted to the construction of relatively inexpensive buildings (nursery and primary schools) and generally takes the form of a contribution of free labour.

How important the contribution is depends, in fact, on the numerical importance of the groups in each catchment area. The report, for instance, quotes two secondary schools for which the local contribution - in the form of labour - accounted respectively for as much as 32.4% and 33.7% of the total building costs. As regards the donations made towards the construction of the "President's College" - now open to a student elite from all over the country - they are put at 600,000 Guyanese dollars, with the overall financial contribution reaching some 4,000,000 dollars.

3.1.2 Equipment and material

Renewable equipment expenditure (minor equipment, instructional material, etc), which falls within current budgets, represents such a low percentage of ordinary education expenditure that it is not nearly enough to meet the needs. Additional funding often has the same origin and follows the same circuits as for building aid, but the interests at stake here are not confined to those of the community and the motivations are no longer merely pedagogical. As a consequence, the possibilities of direct or indirect financing are diversified and can be taken advantage of, insofar as the involvement of non-educational participants is not likely to interfere with educational objectives.

The contribution of the economic sector is an instance of how the educational system and its environment continually interact. It can help reach common targets, so long as it facilitates the integration of school-leavers into the productive sector, but it must not be accepted indiscriminately.

(PHILIPPINES-20): Around 1978, the Philippines Chamber of Commerce asked the Ministry of Education to help vocational schools improve their equipment so that pupils would be able to complete their professional training before they arrived on the job market. In order to receive the proposed aid, the schools were asked to draw up the list of their needs in terms of equipment and material. Therefore, a standard list was prepared by the Education Bureau for Trade, Agriculture and Fishing. As soon as the scheme was launched, it had a strong appeal but it had to be discontinued because no provision had been made for replacing or repairing damaged equipment.

But most of the finance comes from private enterprise, which has a vested interest in the development of technical and higher education, as well as in academic research. Company contribution can take very different forms.

(Th. Malan-12): "Several cases may arise:

- payment "in kind" (through provision of equipment) of a parafiscal corporate levy (for instance, a payroll tax for training).
- loan of equipment as part of research contracts or of continued training schemes.
- donation of, or large price reductions on, equipment.
- provision by firms of fully equipped amenities on university premises, research laboratories used by firms and universities for joint ventures.
- easier access for students, teachers or researchers to sophisticated company equipment, the equivalent of which

universities and laboratories cannot afford ...

- loans of equipment by firms ...", etc.

This collaboration is not only beneficial to educational institutions, it can work both ways and open up university laboratories to industrial researchers and engineers. Lending or donating equipment gives firms the opportunity "to inform students about their products and make these future specialists familiar with them". On the other hand equipment may be given to an educational establishment by a firm on the condition that the beneficiary makes further purchases, a procedure whereby gifts become part of the firm's commercial strategy.

> (Th. MALAN-12): "The most striking instance of commercial strategies is the growing use of micro-computers in teaching. This can be related to the fact that major computer firms, especially American ones, have approached institutions and students with various offers of equipment, either free of charge or at bargain prices ..."
>
> These different solutions are therefore also beneficial to firms: they broaden their market, enhance their brand image, etc.
>
> The fact that institutions have access to preferential rates when buying equipment does not excuse them from proper caution. It is for them to "take into account the extra expenses entailed by the equipment purchased: the cost of the necessary software and peripherals, of their maintenance, of teacher training schemes as well as the cost of recruiting skilled technicians."

3.2 Financial resources

Within the socio-economic macro-system, education is only a component - albeit an essential one - or a sub-system financed by the global production surplus. The financial circuits of the conventional modes of financing (ranging from tax levy to budgetary redistribution of resources) help to ensure coherent development and equal opportunity, so long as an appropriate fiscal policy results in the resources of high-income groups, or areas, being transferred towards their deprived counterparts. But the system as a whole is rather unstable, because of the constant threat posed by the growing demand for education (in terms of both current and capital expenditure) and/or the decline of the productive sector.

(J.C. Galabawa - TANZANIA-6): Before Independence (in 1961), the cost of financing the State education system was shared by the Central Government, regional governments and the population itself.

The introduction of free education and the abolition of regional structures raised government expenditure at a time when the gross national product was declining and the growing demand for education was being challenged by new priorities.

Since 1971-1972, the education sector has been developing less rapidly than the other sectors. The Government's ability to carry the full burden of education through taxation and the "Tanzanian way" of financing education can no longer be taken for granted.

The current trend favours reverting to conventional methods such as the diversification of funding sources (productive labour schemes, external assistance), the re-introduction of school-fees in state-run schools and the financing of primary education by local authorities.

There are, however, limits to the ways in which extra finance can be raised. Making the community contribute to the running costs of schools, for example, inevitably means increasing the burden on individuals, whether through taxes, enrolment charges or school fees, and merely shifts the dilemma of defining priorities in a crisis situation from a national to a local level.

(Dr. Suresh R. Sharma - NEPAL-26): Government expenditure on education has increased steadily as more and more children attend school and technical education has been developed, but the State education budget was still only 1.88% of the G.N.P. in 1979-1980. By way of example, the secondary schools of the Kathmandu district had 52.8% of their finance supplied at the time by private sources, a state of affairs which leads to further elitism and greater social disparities.

Teaching staff salaries are partly financed by the Government, the community having to bear school building and operating costs. Several years of school-fees freeze have spelt heavy deficits for institutional budgets leading to a dramatic falling-off in teaching standards.

Since 1981, efforts have been made to find alternative funding, which have resulted in the setting up of management committees in charge of the administration and financing of schools. However, private donations remain marginal and the introduction of fresh local levies through the Panchayats, although it certainly looks more promising, is strongly reminiscent of standard fiscal practices.

Outside fiscal or parafiscal channels, the main provider of finance is the productive sector, namely the firms, the importance of their contribution depending on the economic context and on whether and how pedagogical needs and financial means are matched.

The financial participation of firms is difficult to assess since it is neither legal nor mandatory. It may take different forms: fellowships, student grants, loans, etc.

(Th. Malan - FRANCE-12): "There are a considerable number of foundations and trusts with a variety of vocations more or less closely connected with education. The richest of these are in the U.S. They contribute to:

- prizes and fellowships meant to foster vocations, to fund study trips abroad and vocational projects;
- financing of education-related activities: health education, accommodation in halls of residence, leisure activities;

- financing of research contracts, of certain training schemes, of education programmes for adults and for minority groups, of technical cooperation programmes, etc".

In Venezuela, two types of intervention - either from firms or from private organizations - are playing a key role in the financing of education at every level of instruction, including kindergartens and adult literacy campaigns:

- Foundations:

(V.H. Manzanilla Saez - VENEZUELA-13): The contributions from private institutions may be mandatory and their legal basis lies mainly in collective contracts entered into by the National Institute for Cooperative Education, which comes under the National Education Ministry.

Other, often large contributions, come from private initiatives and non-profit making organizations. In this context the contribution of private enterprise is seen as a spontaneous contribution to the country's development.

- Grants:

They represent another form of company participation. In order to fight the shortage of qualified staff in Venezuela, a body called EDUCREDITO was set up in 1965. Is is run by a non-profit making organization whose task it is to coordinate the funds from various agencies (there are currently 51 of

them, among which 43 belong to the private sector). Within the last 20 years, it has allocated so-called "grants" to 5,575 students and has thus made it easier for the most disadvantaged students to gain access to University while reducing government-financed expenditure.

Whatever their size, these contributions are modest, even quite marginal at times, if compared to the key role played by the State in the financing of education, which is often a prerequisite for maximum equity. As a rule, private funds tend to be channelled towards courses that are most likely to be useful to the productive sector, viz. higher education, vocational and refresher courses.

A report on company contribution to the financing of education in Finland illustrates this trend with figures:

(D. Lampinen - FINLAND-11): In 1984, funding sources, to the exclusion of those from the State and local authorities, break down as follows:

- General education	3%
- Upper secondary schools	4%
- Vocational schools	7%
- Universities	11%
- Adult education	9%

On the other hand, although such voluntary contributions are undoubtedly a real bonus for the State and for their direct beneficiaries, they may not be completely disinterested. In France, for instance (Th. Malan-12), the sum total of the payroll tax for training

often works out at more than the legal mandatory percentage (1.1% of the wage bill), sometimes reaching 6% in high technology sectors, due to company commitment to staff retraining.

Similarly, when a firm allocates student grants (V.H. Manzanilla Saez - Venezuela-13), it does so not so much out of charity than out of a sense of how a dynamic firm must be run, while realizing its own needs in terms of skilled labour.

Finally, the most genuinely philanthropic foundations may not be insensitive to the tax-exemptions on donations or to the prestige that can be conferred by linking their name with that of a famous institution.

3.3 Human resources

A study of the financing of education on the local level (NIEPA-16) stresses the paradoxical coexistence, in countries with a mainly rural economy, of poverty and under-utilization of physical and human ressources. Under-employment, which is inherent in under-development, perpetuates it and as a result hinders growth. Education - the cornerstone of development - is in itself a major source of employment, but its extension is restricted by salary expenditures which swallow up the greater part of current budgets. Because of the present budgetary constraints, it is only by making the best possible use of the available human resources and by supplementing the traditional inflow of recruits by other means, that educational systems can find their equilibrium and expand.

3.3.1 The resources of the education sector.

- Reduction of needs and costs:

The present tendency is to put the emphasis on restricting needs by making full use of available staff (See Morocco - 3.1.1: Functional Reorganization of Lower Secondary Schools), or by using the more advanced technologies, particularly in the fields of computers and audio-visual means. There is little need to expand on such well-known nation-wide experiments as the Ivory Coast educational television programme. Other innovations, although more modest, are none the less well worth mentioning:

(THAILAND-24): (Radio Correspondence Programme and S.T.O.U. Programme): Using the radio can be a way of avoiding costly building programmes (See 3.I.1) and also saving on personnel. On the one hand, a relatively small team of teachers and technicians can command a vast audience and on the other hand, and above all, this medium makes it possible for listeners (adults or students) to continue working in the productive sector.

The reduction of opportunity cost savings has no immediate incidence on the budget but is in compatible with the quality requirements of the instruction provided, like the reduction of staffing needs.

"At those levels (1) the use of radio (and perhaps television) with correspondence for 'distant learning' has demonstrated a capacity to reduce costs dramatically... Simply because of its lower cost, distance learning can improve access because, for any given budget level, more individuals can be reached with a distance learning system than with a traditional one. (Furthermore) distance learning systems can remove barriers both of distance and of time to provide access to schooling... Distance study allows shifting the time for learning to the evening, thereby aiding a poor student's problem of financing continued education" (2).

However, the introduction of distance learning, like any other innovative experiment, raises problems at every educational level:

"... important problems - of organization, programme preparation, management, accreditation, and political acceptance - none the less remain. In those cases where these problems have been overcome, distance leanning has achieved marked success." (2).

Another example of reduction of staffing needs and of educational costs is offered by Bangladesh and its IMPACT project.

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(1) Secondary and post-secondary levels.

(2) Cl. Tibi, Educational cost and financing, Module V, p. 12. Division of Educational Policy and Planning and International Institute of Educational Planning, Unesco, Paris, July 1984.

(NIEAR - Bangladesh-15): The IMPACT programme (Instructional Management by Parents, Community and Teachers), which was introduced as an experiment in 1981 in 18 schools, is to be gradually extended to some 500 of them by 1988. Self-instruction modules have been worked out for all the subjects taught in the 5 primary education grades. The scheme caters for small groups of pupils, with the more advanced ones helping the others. Thanks to the collaboration of the parents, a single teacher with an assistant can supervise the instruction of some 150 to 200 pupils, a task for which 4 teachers would be required in the traditional system.

- Mobilization of resources of the educational sector: the report of the Vietnamese National Commission for Unesco offers an instance of total mobilization of the human resources of the educational sector.

(VIETNAM-28): The integration of productive work into education is based on an educational principle derived from political objectives (See 2.2.1) but it also affords the opportunity of fully mobilizing human resources available for education. Budget restrictions and the huge challenge represented by the construction or reconstruction of schools call for the participation of the whole community in the nation's efforts. As specified in a resolution of the Political Bureau of the Vietnamese Communist Party on education reform (January 1979), it is vital that the efforts of the State should be

complemented by "the utilization of the individuals, of the services, of the production units and of the labour force of both teachers and pupils, to build schools, laboratories, workshops, gardens and libraries, as well as to repair and to make instructional, training and research equipment". This work-force is indeed, if rationally organized, quite a considerable reservoir for the national economy to draw upon, since the school population - male and female - is equivalent to the fourth of the total population.

3.3.2 Mobilization of resources external to the educational system.

The community's concern for education - parents and employers have a vested interest in it - goes beyond contributing to the financing or to the construction of schools. Its direct involvement, be it spontaneous or organized, in the educational process or in the running of a school may take very different forms.

(MALI-15): In Mali, Parent Associations play a part in the running of schools, which even includes the control and allocation (through elected committees) of funds raised by the community.

The possibility of using personnel from local bodies belonging to other sectors concerned by development activities, such as administrative, medical and sanitary services, is also under consideration. This type of intersectorial collaboration can be very fruitful.

But many obstacles are still to be overcome. This is illustrated by a study made in India, in the Gurgaon district (Jandhyala B.G. Tilak: Utilization of resources for educational development):

> (N.I.E.P.A.-19): The study shows that this type of staff, whose competence could be used in formal or non-formal education, has not been really involved in educational activities. The main reason for this lies in the fact that this staff generally works in administrative centres concentrated in urban areas, with few contacts with villages, and thus it is not easily available for rurally oriented activities.
>
> The study also reveals that a part of full-time staff would be prepared to assume certain educational tasks so long as they were remunerated for them. Voluntary aid is actually very hard to come by.

3.3.3 Collaboration with the productive sector.

Public or private enterprises are the first beneficiaries of the 'inputs' of the educational system and it is only fair that they should contribute not only to the financing of training but also to the actual training process. The comparative degree of involvement of the State and of the firms varies considerably, depending on the country. Such a diversity is proof that there is no strict dividing line between State contribution and private participation but a sharing of responsibilities, which makes the system flexible enough to counterbalance budgetary restrictions in time of austerity.

(Th. Malan-12): In West Germany, for instance, there is along-standing tradition of company involvement in technical and vocational teaching in the form of a so-called 'dual' system with alternate periods of study in a vocational school and periods of work in industry. More than 60% of seventeen-year-olds are integrated into this system of sandwich courses.

In France, on the contrary, technical and vocational teaching is mainly the preserve of full-time schools. Only 11% of seventeen-year-olds are involved in apprenticeship schemes alternating study in a training centre and work in a firm.

In Japan, the responsibility for vocational training falls mainly on firms while educational establishments provide the majority of pupils with the best possible general education.

In view of the considerable importance of teaching and administrative staff salaries in education budgets, one would have expected more experimentation on how to mobilize additional human resources. The problem often comes up but, for want of a complete restatement of the very concept of education and of State responsibility, all the solutions offered so far have turned out everywhere to be non-starters.

The future of educational technologies, owing to the current breakthroughs in the audio-visual field, is very promising. However, radio and television, though they are excellent pedagogical tools if handled by the teacher himself, are no substitute for him. Most of the time, the only cases when the medium takes over are in higher education or in extra-curricular and post-educational activities.

For the same reasons, voluntary aid can only be used within limits, and whatever help the community may give is also limited. It takes professional people to teach and to do administrative work, and voluntary participation, however valuable it may be, is only useful outside the classroom.

Although certain countries could reduce costs by not employing overqualified personnel, it is more often with the problem of teacher underqualification that developing countries are confronted. Reducing or even freezing the wage bill would mean giving up the necessary fight for quality.

Finally, company participation in the field of vocational training can be, and often is, considerable. The State, however, can hardly be relieved of part of this burden without, at the same time, relinquishing part of its prerogatives.

IV. STRUCTURES, FUNCTIONS AND OPERATING CONDITIONS

The diversification of financing sources and the measures intended to ensure a more effective use of budgetary or non-budgetary resources are generally preceded (or followed) by a modification of the functions of the components, and sometimes of the whole structure, of the educational system.

The scope and the nature of the changes initiated determine the decision levels that will be concerned, the innovation being most of the time introduced through a reappraisal of roles and responsibilities. The following examples show how, in practice, the decision to innovate leads to a more accurately defined, if not to a different, distribution of the functions of each participant: the decision-maker, the administrator, the community and the school. The three main fields reviewed will be those of organization, information and control.

4.1 Government authorities and overall reforms

One of the major causes of unjustified rising costs, if not of resource 'wastage', lies in the dysfunctions of the educational system. How long a pupil stays in a given education cycle, how many pupils reach the end of their study course and, among these, how many complete it successfully, are the three key factors in the overall cost of a pupil's schooling. Equipment, staff and building requirements, which vary roughly as a function of the school population, are unnecessarily increased by repeaters, and budgets have to bear the cost of uncompleted studies and

failures as well as of successes. Trying to improve the internal efficiency of educational systems testifies therefore to a double concern for the quality of education and the optimal use of material, human and financial resources.

The chart on the next page gives an example of the methods generally used to estimate wastage costs. It illustrates the evolution of a 'fictitious' cohort, showing how a group of 1,000 pupils would have fared, in theory, in a four-year study cycle. The promotiom, repeater and drop-out rates are undifferentiated and represent the average of the rates observed in 1983 in various countries to the exclusion of extreme cases. Supposing no pupil repeated a year, dropped out or failed, the 728 pupils who were granted a diploma or allowed into the next level of education would have cost the equivalent of 728 x 4, that is 2,912 pupil-years, instead of the 4,447 actually computed. The ratio between these two figures, which is considered here as a cost-effectiveness indicator, is a mere 65.6% and the theoretical cost of a pupil's schooling is multiplied by 4.447 : 2.912, which corresponds to a 52.7% rise due to wastage.

This example makes it abundantly clear that the overall operating conditions of the system must first be improved for unit costs to go down, a reduction which is a prerequisite for further development when funds are in short supply. But such improvement may call for more than a series of cosmetic measures, namely a well-thought-out, carefully-planned, comprehensive reform for which the whole government should be fully and equivocally accountable.

Fictitious cohort in a four-year study cycle

Grades / School years		1st grade R = 11% P = 84%	2nd grade R = 9% P = 88%	3rd grade R = 8% P = 90%	4th grade R = 33% P = 56%	Graduated or accepted into next level	Pupil-years	School-leavers and drop-outs
t_0		1000					1000 →	50
t_1	R P T	↓110 - 110	↘ - 840 840				950 →	31
t_2	R P T	↓ 12 - 12	↘ ↓ 76 92 168	↘ - 739 739			919 →	22
t_3	R P T		↘ ↓ 15 10 25	↘ ↓59 148 207	↘ - 665 665		897 →	451
t_4	R P T		↓ 2 - 2	↘ ↓ 17 22 39	↘ ↓219 186 405	↘ 372	446 →	272
t_5	R P T			↘ ↓ 3 2 5	↘ ↓134 35 169	↘ 227	174 →	113
t_6	R P T				↘ ↓ 56 5 61	↘ 95	61 →	61
t_7	R P T					34		
Newly enrolled & promoted		1000 →	942 →	911 →	891 →	728		
Pupil-years		1122	1035	990	1300		Total 4447	
School leavers & drop-outs		58	31	20	163	728	→	Total 1000

From "The Process of Educational Planning", Module III: "The Diagnosis", p.44, Division of Educational Policy and Planning, Unesco, Paris, 1984.

A review of the recent educational reforms having as one of their aims an improved internal effectiveness would have exceeded the limits of this study. One should bear in mind however that their success, as is the case for all innovation, has generally been bound up with:

- clearly defined targets and their integration into overall development objectives,
- a firm political decision, consistently adhered to and involving the whole governing team,
- political, administrative, financial, pedagogical, etc measures that are convergent and compatible enough to impart a fresh coherence to the educational system.

If these principles are overlooked, the reforms implemented can be counter-productive. By way of example, the measures taken in Tunisia in 1971-1972 to keep the repetition rates down "brought about a sharp rise in the school-leaving rate at all levels of primary education: the figures rose sharply from 96,000 in 1971 to 158,000 in 1972, excluding those going on to secondary education." After this "radical shake-up of the system", a more flexible school legislation came into force, which resulted in a decrease, then in a stabilization of the school-leaving rate, this being offset by a steady increase in the repetition rate (the average rate went from 19.8% in 1975 to 25.1% in 1979) (1).

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(1) Les sorties de l'enseignement primaire de 1980 - National Education Ministry, Tunis, 1981.

4.2 Central, regional and local administrations

Whether they result from a comprehensive reform programme or from more limited objectives, the measures taken to raise fresh funds or to ensure a better management of conventional resources, imply a reassessment of administrative procedures and often a redistribution of roles. Responsibility for the decision to innovate or to experiment, provided it interferes neither with the overall educational objectives nor with the fundamental relationships of the educational system with the other sectors, generally lies with the central administration, which is in charge at the highest level of organization, information, training and control. The following examples are concrete evidence of how certain administrative bodies have adjusted to new situations they had created themselves, or simply accepted.

- Organization

(PAKISTAN-7): The education sector was one of the main beneficiaries of the Special Development Programme, which was conceived by Pakistan in 1982 for integrated rural development. 8,000 mosque shools were to be opened, 2,000 classrooms for primary education were to be built and 3,000 existing schools modernized.

The responsibilities were distributed between the Federal, provincial and district levels. The overall cohesion of the scheme was ensured by Federal Coordination Units and by the

National Coordination Group whose Chairman was also the Chairman of the Planning Commission. The funds were distributed to the provincial education departments by the Federal Government. An evaluative study of the project showed encouraging results during the year 1982-83, in spite of delays in the utilization of funds, due themselves to delays in the implementation of the programme.

- Information and training

(R.R.Gillespie 9 - PAPUA-NEW GUINEA): The Secondary Schools Community Extension Project had a double target: involve the community in the development of secondary education and test the possibility of including a rural component in curricula. It was instigated by the Government and not at the teachers' or pupils' request.

One of the difficulties encountered was to 'sell' the project to the teachers as they might have seen it as a cheap alternative likely to be detrimental to their future careers. But the central administration launched an intensive in-service training programme for the teachers concerned, along with a very explicit information campaign.

A survey conducted in 1981 revealed that, in spite of the extra workload, the lack of incentives and in spite sometimes of the shortage of materials, the teaching staff response was on the whole very positive. Had it not been for the training and information campaign mounted prior to the experiment, the latter might have have proved a failure.

- Control

A case study carried out in Guyana also highlights the part played by central administration, but this time in the field of control and despite the fact that the community's financial contribution to the school activities was entirely on a voluntary basis:

> (GUYANA-27): The community organizations (Parent Action Committees, Alumni Associations) have to conform to rules and regulations set by the National Ministry of Education. The village councils may formulate requests for new premises but every construction project has to be officially endorsed by the Ministry.
>
> The main function of the community organizations is to raise funds through all manner of activities and under the administration's financial control. Some of these funds may be managed by executive committees set up by the community but all donations must be entered up in the school's inventory and a report must be sent to the Ministry before they can be used.

Overcentralization in the fields of organization, information and control may result in serious dysfunctioning. Too rigid structures and inadequate coordination are often held responsible for implementation problems. Among the most frequent grievances are the time it takes for directives to be relayed or for funds to be released by regional bureaux (Tanzania-6), the paucity of statistical information (Philippines-20) or the administrators' unpreparedness when new tasks are imposed upon them, such as the use of sophisticated budgetary techniques (Thailand-20).

Most difficulties can be - and often are - solved through delegation of powers, especially financial power. According to C.B. Padmanabhan (India - N.I.E.P.A.-18), delegation of powers and the authorization to commit funds are the main prerequisites for effectiveness, because they contribute, not least because of their motivating impact, both to a better mobilization of additional resources and to a smoother operation of the system.

For many authors, it boils down to a necessary centralized approach, be it in the administrative or the planning field. In this respect, regional development is a case in point: it is often regarded as inextricably bound up with an integrated approach of local problems and with micro-planning.

4.3 The functions of the community

The previous chapter (Ch. III) offered many instances of the multifarious fields and modes of community involvement outside State structures and showed how varied its material (3.1), financial (3.2) and human (3.3) contributions could be. This extra-budgetary participation in the setting up or the running of educational institutions points further than to a mere interrelatedness between the school and its environment or between the educational system and the socio-economic macro-system. The whole community is directly or indirectly concerned by education on some account or another, and any voluntary contribution testifies to - and at the same time fosters - an awareness of this fundamental interdependence.

However valuable community contribution may be when funds are in short supply, this raises none the less the problems of the necessary autonomy of decision-makers, of the necessity for individual or collective initiatives to conform to national objectives, not to mention the question of the allocation and management of these additional resources.

4.3.1 Community organizations.

The community organizations engaged in the financing of education are very different, depending upon the socio-economic structure of the country, the importance of the part played by the State in the running of the educational system and the level at which the community intervenes.

(GUYANA-27): The case study dealing with the participation of local communities in Guyane draws up a list of the organizations directly concerned with the smooth running of the school and prepared, accordingly, to assume part of the responsibilities involved. Owing to the specific situation of this country and to the most frequently observed modes of participation, the organizations listed are only those within, or in the vicinity of, the school's catchment area:

- parents and teachers,
- religious organizations (although the schools were taken over by the State in 1976, these go on intervening through other associations),
- commercial or industrial firms, mainly in areas dominated by a major enterprise,
- local administrations.

(KENYA-1): The Kenyan study case, which deals more specifically with the inter-relationships between the community and the Government adds a further three organizations to the list:

- foundations,
- parastatal organizations,
- development agencies.

A more comprehensive classification of all the non-governmental bodies involved in the financing or the running of schools might actually be reduced to three categories:

- the organizations set up by the productive sector;
- non-governmental national associations or agencies,
- that part of the community which is directly linked with the school.

4.3.2 The productive sector.

The examples analyzed in chapter III showed how vital the education-enterprise relationship was and how beneficial for each partner a regular collaboration could be, especially in the areas of full-time student education, continued education and research.

However, the distribution of the roles and functions between the State and the enterprise may give rise to conflicts of interest . For instance, when it comes to exchanging staff, teachers or research-workers are likely to be lured away from the public sector by the prospect of a higher pay.

Direct provision of equipment may pertain more to a commercial than to an educational strategy. The institutions must therefore ensure "that they retain their freedom with regard to pedagogy and choice of equipment through diversification, for instance, of their suppliers, bearing in mind that students are best trained when given the opportunity to handle different types of equipment" (Th. Malan-12).

It is therefore incumbent upon the State to introduce safeguards to ensure that education stays within the confines of its traditional mission. The State must also make sure that the objectives of its educational policy are not perverted, by imposing a 'code of conduct' defining its links with private firms.

> (Th. Malan-12): "Punctual actions must give way to the search for a joint policy, with each partner undertaking to abide by its commitments...
>
> It is particularly necessary to bring private enterprises and educational institutions together in such a systematic form, in countries where the world of work and the world of education are cut off from each other. This can take place at different complementary levels: national out-line agreements between the Ministry of National Education and major public or private enterprises, etc.
>
> Regional educational departments can also sign agreements with chambers of commerce or industry, with a particular professional branch or an organization representing it. Finally, similar agreements may be reached at the local level, involving one or several educational establishments and one or several firms".

4.3.3 Non-governmental national organizations.

Company contributions and individual donations may be channelled to non-profit making associations or foundations, be they scientifically, religiously, educationally, socially or culturally oriented. In so far as this participation takes the form of gifts (sponsorship, fellowships, etc), it is in the State's interest to encourage them, which it does most of the time by granting partial or total tax exemption on company profit margins.

But there again, and for the same reasons, the respective functions of the State and of the contributing organizations have to be strictly defined. In Venezuela for instance the State, while encouraging private initiatives, makes sure that it has the final say:

> (VENEZUELA-13): The National Constitution stipulates under article 72 that the State protects all philanthropic associations, agencies, institutions and communities. However, article 19 of the Civil Code holds that for foundations to be granted legal status and be eligible for tax relief, they must be non-profit making organizations. Tax exemptions have to be approved by the Ministry of Finance, their amount depending upon what the donation is for. The conditions under which foundations operate are closely monitored by the State which receives their annual report through the agency of its administrative departments. A recent 1984 decree specifies what are the requirements to be met by the various types of foundations and associations.

The associations or organizations whose objectives are mainly poltical, philosophical or religious, have close links with public education in those countries where denominational schools are subsidized, but their study would be relevant to an analysis of the aims of education rather to a study of the way it is financed.

4.3.4 The school environment.

How local community participation is organized depends not only on the State's overall decentralizing policy but also on the economic context, on social and cultural traditions and on the historical context the educational system started up in. The modes of participation, both in terms of provision and of utilization of additional resources, are infinitely varied, but the distribution of roles and at times the codification of functions may be easily defined. It corresponds to the relationship that has developed between the three following agents:

- the school and its staff,
- the community, whether it is organized or not, into committees, councils and sundry associations (parent organizations, alumni associations, etc),
- the representatives of the local administration.

This triangular pattern offers a whole range of possible combinations in view of the 'power struggle' which takes place between each group of participants. In this respect, the example of Mali is worth mentioning as it is characteristic of how closely intertwined administrative and community structures are. It also testifies to the

frequently voiced determination to keep community organization within a restricted geographical area compatible with the community's modes of participation.

(MALI-2): "Parents Organizations were first experimented with, in their current form, in the Sikasso region, Mali's 3rd administrative region, in the years 1969-70. The objective was to coordinate the efforts that were being made by parents to back the State's campaign - which was quite commendable in its own right - of educational development. To achieve this, it turned out to be necessary to give the organizations a structure that would fit in with the realities of Malian life, to define their mode of financing, to work out how they could be run efficiently, and finally to place them into a legal institutional framework ... The structure of Parent Organizations is modelled on the administrative divisions of the country, viz. the 'Arrondissement', the 'Cercle' and the Region.

... a) The 'Arrondissement' Parent Organizations: each of them is under the authority of the 'Chef d'Arrondissement' who collects the contributions and is responsible for their use ...

b) The 'Cercle' Parent Organizations: a Central Bureau of Parents Organizations has been set up at the 'cercle' level; it is made up of representatives of the 'Arrondissement' Parent Organizations and under the authority of the 'Cercle' Chief ...

c) The Regional Parent Organizations: each Region has its own Regional Bureau made up of the representatives of the 'Cercle' P.O.'s, its work being to coordinate and harmonize and not to

decide how funds will be allocated.

d) The National Federation of Parent Organizations: A national structure was to ensure by 1978 the coordination of all the Regional Parent Organizations. It was the National Federation of Parent Organizations.

The whole structure of Mali's P.O.'s had to be reviewed in 1979. The National Federation and the Regional P.O.'s were scrapped, the administrative apparatus being uselessly cumbersome and of dubious efficiency".

4.4 The functions of schools

Finally, some experiments aim at reducing or meeting material, human and financial needs by drawing on the school's own resources. This is particularly the case with self-education experiments whose twofold objective is to make up for staff shortages (See 3.3.1) and to achieve a greater pedagogical effectiveness, and with self-help experiments. In the latter case, the involvement of pupils, teachers, and sometimes parents, in the running of the school may reduce the requirements in administrative staff but it is essentially a motivating factor because it makes the participants more aware that they belong to the school community.

In both cases, the school's operating conditions are a departure from traditional procedures but they do not in the least alter its basic teaching mission.

Regarding self-funding experiments, they are all based, although to variable degrees, on two pedagogical principles: first, integration of theory into practice and of the school into its environment, second, pupil introduction to productive and socially viable work. In this respect, such experiments do not alter so much the purposes of schooling as its nature.

R.R. Gillespie's report (Productive work and the partial self-funding of schools: 9) draws attention to their common feature: they all have grown out of an awareness of the elitist character of traditional teaching systems which turn out pupils who are not only ill-prepared for productive work but also, and above all, reluctant to engage in it.

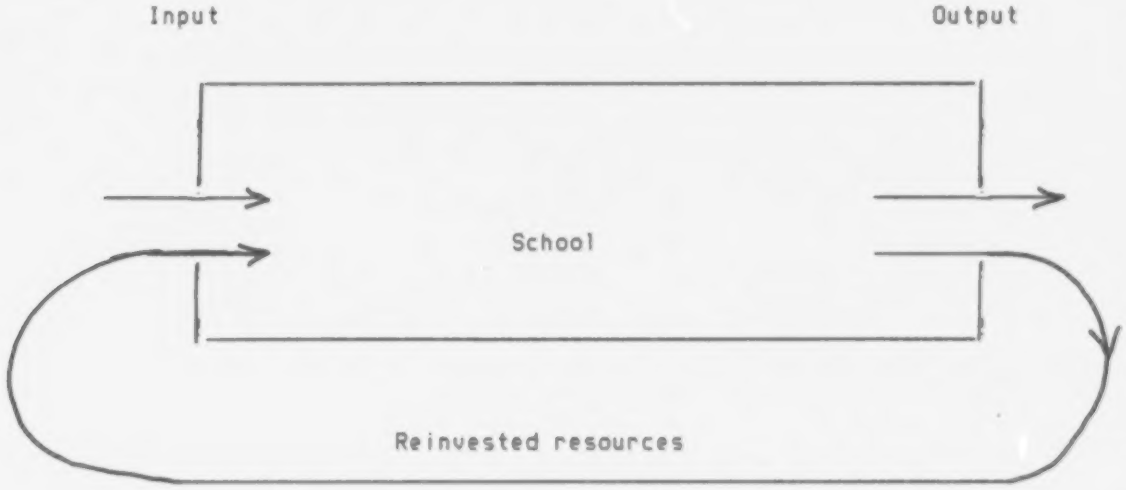
> (R.R. GILLESPIE-9): This situation is particularly dramatic in poor countries whose population is still mainly rural while priority should be given to industrial development and rampant urban underemployment should be tackled.
>
> The countries which initiated the aforementioned experiments were going through similar crises, for instance China during the 1966 Cultural Revolution, and Cuba and Tanzania when they launched into major reforms, in 1969 and 1967 respectively.
>
> In each case they were out to fight the elitism of traditional education and their experiments appear as attempts at reducing the disparities between urban and rural areas or between intellectual and manual work, with school and productive work being brought into closer contact as a result.

Self-funding, however, cannot only be accounted for in pedagogical terms. In industrialized countries, it may be a way of getting round legal restrictions on employing minors in productive work. But most of the time, particularly in developing countries, self-funding through productive work is linked to lack of resources. Not only does this means that the nature of schooling is altered but also its very function: pupils are not just taught, they are also turned into productive agents.

Innovation in that field is to be seen, partially at least, as an output of the educational system, even though the fruits of productive work are reintroduced later into it (as is the case for the 'productions' of standard schools). This form of educational output will therefore logically find its place in the next chapter.

V. The school's outputs

The diagram below shows how the material and financial resources generated by the school are 'reinvested' to help it meet its needs.



Attempts at being self-sufficient (at least in terms of food) and self-funded (or partially self-funded) schemes are widespread but generally marginal and their results are very uneven. There is nothing particularly new about schools opting for self-consumption. It has always been a tradition for some educational institutions to consume the produce of their gardens or for vocational schools to use their workshops to make or repair small items. However, resource reinvestment takes on quite a different meaning and sometimes considerable proportions, when it is officially used, nation-wide, as a makeshift measure to help the State overcome its finance problems. A rapid analysis of the experiments carried out in Benin, Tanzania, Panama and Vietman will illustrate how the system works.

5.1 Material outputs

Beyond the work-study relationship, school production has as its main function to try and make up for inadequate institutional budgets.

(PANAMA-23): One of the objectives of the reform of the educational system worked out in Panama in the 1970s and implemented between 1974 and 1979 (before being discontinued because of teaching staff pressures) was to see that schools became at least partially self-sufficient so as to be able in particular to finance their own boarding expenditures.

(BENIN-10): In Benin, a 1981 circular on how the surpluses of school cooperatives should be allocated and distributed stipulates that school funds must help, inter alia, "to improve the quality of school meals, to diversify recreational and leisure activities, etc". No matter how wide the range of activities offered in schools providing a meal service, the weight of evidence suggests that the pupils, perhaps preoccupied with undernourishment, devote more of their time to working in fields, gardens and orchards than to studying the other subjects of the curriculum, due perhaps to the administration's concern for self-sufficiency".

(TANZANIA-6): Similarly, in Tanzania, agriculturally-oriented school activities are supposed, in principle, to provide 25% of the food needed for running a meal service. If a few schools have been able to cover as much as 90% of these costs, the national average in 1981 was a mere 16% and the total school

production accounted for 6% of overall public expenditure.

The projects did not always came up to expectations owing to "a few scientific errors" and if one takes into account the deficit run by some institutions, the contribution of productive labour proved on the whole to be marginal.

On the other hand, those projects were not integrated into the major national programmes and thus were not eligible for the national credit system whereby additional equipment could be purchased on favourable terms.

5.2 Financial outputs

Whatever is produced by the school and is not consumed by it can be sold, and even made to serve more ambitious purposes. In some cases admittedly, as pointed out in the report on the Thiès Conference (Senegal-5), "the only person to profit by these so-called productive activities is the school-master". The figures below, however, are less pessimistic. The 1984 balance-sheet for Benin, for instance, is as follows: (Benin-10)

- Number of schools	2,609
- Land under cultivation	4,164 hectares
- Receipts	54,740,462 francs (1)
- Expenditure	34,406,301 francs
- Balance	20,334,160 francs

(1) C.F.A. francs (...)

The average receipts per school work out at 20,981 francs and the average balance at 7,794 francs. (I)

The distribution of the profits made in 1975-76 by a dozen schools of the Mono Province is as follows:

- Contribution to the running of schools:	77.0%
- Contribution to the running of the meal service:	5.5%
- Remuneration of school cooperative operators	2.5%
- Sundries	15.0%
- Total	100.0%

Some experiments, however, go far beyond the mere self-funding of schools:

> (PANAMA-23): In Panama, for instance, the productive activities of the schools had two functions: first, to make up for the huge initial investment called for by the generalization of basic education and the development of vocational training; second, to facilitate the maintenance and renewal of the equipment.
>
> The production of the 67 schools in existence in 1975 (1,244 tons) was big enough for it to be sold - with the official approval of the authorities - not only on local markets, but also through the distribution channels of the Ministry of Agricultural Development. If the profits made had little effects on the budget due to the huge importance of the total wage-bill, self-funding made it possible none the less to reduce schooling expenses for the most deprived children. It is

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(I) C.F.A. Francs.

probably also thanks to it that schooling was extended in the 1970s, enabling pupils to stay a further two years at school.

(VIETNAM-28): Finally, in Vietnam, where the whole school population together with the administrative and teaching staff are regarded as agents of the productive sector (See 3.3.1), a resolution voted by the Central Committee on December 10, 1982 encourages the educational services to participate in productive work in view of the export drive launched by the Ministry of Commerce of External Commerce.

The document drawn up by Vietnam's National Commission provides no financial estimate of the returns of that productive work but reckons that less than half the educational expenditures are borne by the State, the remainder being covered by the various contributions of the Vietnamese people.

5.3 Human resources generated by schools

The reinvestment of human resources is a necessary function of the educational system which generates its own workforce (teaching, administrative and technical staff) in proportion to its own needs, at least when the number of teachers turned out by training colleges is in accordance with rational planning objectives.

The transformation of 'a raw material' into a finished product, which is what the educational process actually is, has to be complemented by the transformation of the human, social and economic environment, which is itself bound up with two objectives: fostering individual fulfilment and training the agents of the productive sector.

Sound management of the resources of the system must enable it to meet the needs of the productive sector as well as possible. However, such a concern for external effectiveness, that is for a balanced relationship between education, training and employment, has to take into account that the two objectives mentioned earlier cannot be dissociated. The educational system must, over and above all, form the mind and is not be seen as a mere supplier of manpower. Should schools be made subservient to employment requirements they would have to relinquish their educative role and give priority to productivity.

The risk of 'wastage' or of human resource mismanagement at the end of the educational process is none the less quite real. Efforts must therefore be made to improve the external effectiveness of the system without losing sight of education's main target. We give hereafter a few examples of measures aimed at 'recuperating', guiding or integrating school-leavers .

The re-integration of school-leavers : In the diagram presented in 4.1 (Fictitious cohort in a 4-year cycle), 728 out of 1,000 freshly-enrolled pupils reach the end of their study cycle, and among them, only 372 complete it in four years.

Failures account for more than a quarter of the pupils concerned (272) and among those leaving without a diploma or who were not allowed to go on to the higher cycle, only 163 had at least the opportunity of completing the full cycle. The remaining 109 dropped out after one year (58), two years (21) or three years (20). Such drop-out rates, however, are by no means exceptional and it would be easy to find more dramatic situations, especially in the rural zones of developing countries. One must also bear in mind that studies, even if interrupted, are undoubtedly an asset and that other avenues are open to school-leavers (adult education, literacy campaigns, etc).

(PAKISTAN-7): The EPPIERD Project (Experimental Pilot Project Integrating Education in Rural Development) mentions, among its targets, the setting up and testing of primary education models which will be made available to the maximum number of rural children. Priority is also to be given to adjusting educational services to the specific needs of 'an increasing number of primary school leavers'.

Similarly, the Special Development Programme specifies that the content of primary education will be modified and the curriculum made more flexible 'so that it can be adapted to local environments', thereby 'enabling children to attain a reasonable level of functional literacy by the time they leave the primary schools'.

- School and careers guidance : School and vocational guidance allows significant savings to be made insofar as it lowers the failure rate by helping pupils to make decisive choices. Although this is no innovation, it is worth mentioning here because it is a component, or one of the beneficial effects, of some programmes. Many documents highlight the possibility of avoiding the uselessly expensive, dead-end forms of schooling by bringing pupils into contact with the realities of professional life. This is the case of most of the projects emphasizing productive work at school. Similarly, the training courses and general education courses set up jointly by the school and the firm, help fight against the dangers of too early specialization.

> (MALAN-12): "Complementary training schemes organized in cooperation with employers and on the principle of sandwich courses can act as 'half-way houses' between qualifying in basic technical skills and the acquisition of real jobs. Starting out from fundamental training in a core of skills that can be used in a cluster of jobs, and without specializing young people too early, schools can progressively diversify the training schemes offered, as a result of feedbacks from businesses and up-to-date analyses of job prospects.
>
> They are more flexible, more readily adaptable than basic courses. As they only cater for a limited number of pupils, they can rely more heavily on firms to define needs, organize study courses and training periods, and ensure that the pupils find employment".

- Professional integration : Adapting school production to the needs of the productive sector, both from the qualitative and the quantitative point of view, is probably best left to rigorous planning and to sophisticated techniques than to innovative experiments whose failure would be greatly harmful for the 'guinea-pigs'. However, the objectives of integration into professional life which underpinned Panama's 1975 experiment deserve mentioning:

> (PANAMA-23): The productive schools set up in Panama in 1975 by the 'Programma de Desarollo Educativo Integral' were to contribute to the country's development, with school and community being integrated into production. The content of the 9-year-long base cycle had been adjusted so as to fit in with the community's productive activities. As a result, the importance of work was brought into prominence, modern techniques became known through school activities and pupils were integrated into the world of work before they had actually completed their studies.

5.4 Resource allocation

Optimal use of educational resources requires a perfect knowledge of the financing system and of the resources themselves (in terms of size, nature and availability) together with a clear definition of objectives and priorities, not only in the educational but also in the economic and social fields.

5.4.1 Internal effectiveness of financing systems.

Conventional budget management techniques, which rest on the codified balance of receipts and expenditure, are generally inadequate when it comes to taking additional resources into account, particularly when the latter do not go through the usual fiscal channels. In this respect, India's Sixth Five-year Plan (R.P. Singhal - N.I.E.P.A.L.-19) emphasizes the fact that "although it is necessary to launch a huge investment programme to reorganize the country's infrastructure, it is just as important to alter and to improve the financing system by taking non-monetary inputs more largely into account".

The most immediate consequence of the inadequacies of financing procedures is that implementation programmes are often delayed or blocked: "If India's expenditure per pupil in primary education is the lowest in the world, it is partly because the sums allotted are insufficient, but also because current budgetary procedures do not ensure that the credits allocated are released in time" (C.B. Padmanabhan - N.I.E.P.A.-19).

Many documents quote experiments whose aim is to look for alternative methods of allocating resources:

(THAILAND-24): In Thailand, the "Project for the Improvement of Financial Practices in Educational Institutions" aims at finding the factors which condition local needs and the availability of local resources.

- By assessing the needs, one can determine what part of the national budget will be assigned to each provincial government, this being made possible by the analysis of such objective data as the school population and its distribution, the size of the educational establishments, school transport expenditure, etc.

- By assessing the local resources, one can determine how much each province can contribute (very little actually, since most levies are collected at the national level).

Once gathered together, the various data and indices will allow a weighting to be given to allocating formulae.

Another method, whose aim is also to work out weighting criteria, allows for comparisons between hard facts and targets, between 'what is' and 'what should be'.

(THAILAND-24): In 1979, the programme called 'Budgeting for Greater Equity' developed an assessment technique with regard to the number of teachers required. Twelve variables were taken into account, such as the population of each province, the teacher/pupil ratio, the promotion rates, etc.

(It should be noted that the importance of each variable is directly related to national objectives. For instance, when the National Education Scheme decided that compulsory schooling would have to be extended from 5 to 7 years, one variable - the promotion rate from 4th to 5th year - took on a particular importance).

As regards experiments trying to reduce delays in implementation procedures due to bureaucratic inadequacies, Bangladesh's use of letters of credit is worth quoting.

> (BANGLADESH-15): At the end of the financial year, one often finds out that many funds have not been used because of the sluggish pace of procedures. In order to avoid delays, the Government has set up special development funds with the participation of 4 merchant banks.
>
> A system of letters of credit, introduced in 1983-84 to facilitate the financing of projects, was then extended to secondary staff salaries in the form of cheques issued by the banks.

Finally, the experiments carried out in Ecuador and Peru (A.R. Morales-14) tend to opt for a decentralized form of financing, which enables each educational institution to tackle its own funding problems, with all those concerned using their ingenuity as best they can to mobilize additional resources. Although each establishment is dependent upon a two-way information system, having on the one hand to rely on statistical and accounting data (upward information) and, on the other hand, to abide by instructions (downward information), decentralization does provide more room for manoeuvre.

5.4.2 External effectiveness of financing systems

Resources which are channelled through the official budget must be used to their best advantage for national or regional objectives to be achieved.

The first requirement as regards resource allocation is that educational priorities should be firmly adhered to. In this respect, the question is sometimes raised of an ideal distribution of capital and current expenditure. Many authors, while admitting that this distribution must rest on strict rational criteria, agree that it is a non-problem . All educational expenditures must, of necessity, tend towards similar objectives and most of the time, the distinction only applies when current expenditures are managed at the provincial or local levels. In fact, to quote a statement made by Pakistan's Minister of Education in 1970 (Pakistan-8, p.8): "The entire educational expenditure is in the nature of investment in man - whether it be the cost of building a school or the salary of a teacher".

Budgetary techniques such as 'Performance Budgeting' can help ensure that resources are fully used and in accordance with priority objectives. In this particular case, resource allocation is presented in terms of programmes, activities and projects instead of the traditional headings and sections. Projects are thus seen in the triple perspective of the selection of targets, of the assessment of the necessary resources and of the search for funding sources, provided however that the people in charge have at their disposal reliable indicators and sufficiently complete, well-broken-down data.

5.4.3 Difficulties

The adoption of financial management models raises its own problems. For delegated authority and transferred responsibilities to be effective, they must be accompanied by administrative decentralization and a reappraisal of control procedures. But this is not always the case. In Ecuador for instance (A.R. Morales-14), decentralization does not go beyond the provincial level, while budgeting should actually take place at the local level.

On the other hand, when a new system is introduced, the staff should be fully briefed on the new techniques involved. One is thus led to consider setting up refresher courses and even updating the curricula of training colleges.

Similar observations were made by C.B. Padbanabhan when an evaluation of the budgetary reforms of the educational system took place in India:

> (N.I.E.P.A.-19): Among the reasons why the new budgetary techniques used by such states as those of Maharashtra, Karnakata, Tamil Nadu and Gujerat were not always as successful as expected, one must quote:
>
> - insufficient organization of departments,
> - shortage of qualified staff,
> - allocation of new responsibilities without the corresponding delegation of authority,

- a non-participative style of decentralization,
- lack of information.

Little wonder that the findings of that particular experiment should sound trivial: they actually epitomize the main difficulties any innovation - whatever the context - is bound to come up against.

VI. CONCLUSION

At the end of this study, a few tentative conclusions may be drawn as regards the problems posed by the limited resources available for education and by the implementation of reforms aimed at a more efficient use of these resources.

1. The financial aspects

The documents analyzed account for only a limited number of situations whose common features are a lack of funds - illustrated by the dramatic gap between needs and means - and the ingenuity, the originality and sometimes the boldness of the solutions put forward. However, for all their apparent diversity, these experiments, measures and projects fall into five categories:

- indirect taxation,
- marginal contributions,
- austerity measures,
- reduction of the role of the State,
- greater effectiveness.

- Indirect taxation

The measures tending to switch a bigger part of the burden of educational expenditure onto local authorities, local associations or directly onto the parents, simply amount to a change in procedures and terminology.

The volume of expenditure and the 'fiscal burden' in the broadest sense stay the same. The only difference lies in the fact that this shift of emphasis tends, through the decentralization it entails, to bring the community closer to the school. But the other side of the coin is that this new fiscal deal runs counter to the principle of national solidarity, since only the beneficiaries of education are forced to assume its cost.

- Marginal contributions

They are represented by whatever is contributed on a voluntary basis, in the form of labour or in kind, sometimes in cash, by individuals, communities, organizations, school cooperatives, etc. Most experiments involve enormous imagination and goodwill. This in itself shows how deeply the community is attached to its schools and is enough to justify all the various types of participation. From the financial point of view, balance sheets are rarely produced, and when they are, they are substandard. Nevertheless, some schools are in such dire straits that even the most marginal contributions can become a life-line.

It is difficult to decide whether the output of the so-called productive schools falls into this category. The data produced in the documents that have been analyzed for this study support the view that productive labour schemes are often pedagogically successful but financially very uneven.

As regards the nation-wide experiments which place the emphasis on the financial aspect, one can neither assess their economic impact, for want of proper balance sheets, nor their educational effects for want of thorough evaluations.

- Austerity measures

Eliminating unnecessary expenditure, trying to streamline procedures, making sure that teachers have a full teaching schedule and that buildings and equipment are fully used, economies of scale, etc, are in fact simply the normal characteristics of sound management, and nothing else. To see in them the hallmarks of innovation would be going too far. With regard to the reductions in costs that technological advances (radio, television, etc) were expected to bring in their wake, they are tied up with solutions which, however innovative they may be, have a limited scope and are difficult to generalize.

Substantial savings can be achieved only by cutting back on what is by far the biggest item of the budget, namely teaching staff salaries. However, as J.C. Eicher (1) puts it, "such a step would seem to be hardly realistic bearing in mind that in most countries teachers enjoy statutory protection as regards their pay level and promotion prospects, and have the backing of powerful unions". Finally, even if such measures were to be considered, they would run counter to a far more urgent need, particularly in developing countries: the need for more and better qualified teachers.

(1) J.C. Eicher: "L'évolution des systèmes d'enseignement dans le monde de 1960 à nos jours. Aspects économiques et financiers". Division of Educational Policy and Planning, Unesco, Paris 1985.

- Reduction of the role of the State

The shifting of the heavy financial burden of vocational training onto firms and employers can lead to a considerable drop in public spending for education. But the corollary of that shift is that the State relinquishes part of its responsibilities and authority in the field of education. It is actually a political choice with far-reaching consequences which cannot be justified merely on financial grounds.

- Greater efficiency

The most economical educational system would probably eliminate the most expensive cases of dysfunctioning, such as repetitions, drop-outs, failures and dead-end courses. Such a system would provide a high standard of education and its development would require rigorous planning. Unfortunately, the solutions put forward by planners generally involve further building, training, retraining and equipment programmes, and thus imply further capital expenditure.

It would be pointless to look for an instant solution to the problem of educational financing, but no solution can be rejected straight away. An education budget is the result of a choice and priorities vary with the economic context. What works in favour of education is, perhaps, that it is bound to remain an indispensable instrument for governments, local authorities and community organizations, no matter which priorities are finally selected.

2. Innovation problems

As regards the problems posed by the introduction of new measures and more generally by innovation, the literature once again gives us plenty of food for thought.

The experiments analyzed here fall into two categories, depending on whether the expected change is to take place outside the educational system (point of entry into the system: search for and mobilization of new educational resources; point of exit from the system: adjustment of 'outputs' to external needs, in terms of quantity, quality and distribution) or within the system itself (curtailment of needs, correction of malfunctions, optimal utilization of facilities and staff). In either case, change is likely to disturb well-established equilibriums, far beyond the point of impact of innovation. There is more therefore to innovation, at least most of the time, than mere local intervention, and if it is to be successful it must be accompanied by measures (better information and training, reassessment of structures and roles, etc) that will strengthen the coherence of the system.

Little wonder that there should be so many difficulties to contend with, one of the hallmarks of all educational systems being their apparent natural resistance to change, especially when political determination and continuity are lacking. The prevailing tendency towards a dual system fosters and perpetuates a conventional, elitist form of schooling, while alternative systems are deemed of inferior quality and less easily accepted by pupils, parents, teachers, even in the communities which initiated them. The administrative staff itself is sometimes seen to drag its feet when it comes to structural readjustments or to allocating funds for an experiment to take place. Finally, the staff are not always prepared for the necessarily new problems they will be confronted with, a state of affairs which in education can be awkward since the impact of novelty - which can be considerable - does not always coincide with what the planners had expected.

However, the many successful and often remarkable experiments this document testifies to, are also proof that educational systems can rise to the challenge and muster, in periods of hardship, the flexibility they had been lacking in so far. Individual or collective creativity thus becomes a prime requirement for any strategic approach to adaptation and change.

3. Towards new educational concepts

What lesson may be drawn from such achievements and even perhaps from certain failures?

On the one hand, some projects are somewhat ambiguous. For

instance, the dossier compiled by the Commonwealth Secretariat poses the problem of whether the members of the particular community involved are not more concerned by how their own children will fare at school than by a collective educational effort for the benefit of the whole community. This also applies to productive labour schemes: although they testify to a pedagogical and financial concern, they tend, when funds are in short supply, to give priority to the financial objective. The other question is whether such experiments can be extended to different countries, no matter how similar the economic and social contexts in which they were conducted. An experiment which was successful in specific conditions cannot be extrapolated indiscriminately and what is a good solution for industrialized countries might turn out to be unacceptable, or simply impossible, for less developed ones.

The fact remains that many problems have been clearly defined and that solutions have been found. First, a more flexible approach has allowed for a variety of choices, with efficiency and equity becoming less antinomic through diversification of the modes of financing. The dilemma of having to choose between quantity and quality is being superseded by a sound resource allocation policy. The task of choosing between reducing regional disparities and implementing national objectives is obviously simplified when the development of human resources is considered as a prerequisite to the evening out of social or regional inequalities. More important still, these experiments are more concerned by cost-effectiveness than by cost-trimming exercises and are thus valuable in several respects: they allow for a better evaluation of

the resources to be tapped and a better appreciation of the part played by firms or communities, and they open up a wide range of possibilities of intervention from community involvement to intersectorial collaboration.

They prove, finally, that even for the most deprived countries education remains a top priority and that educational systems the world over, by pitting their own dynamism against financial hardship and by trying to develop differently balanced structures, are playing a significant part in the current reappraisal of the concept of education.

VII. RECOMMENDATIONS AND SUGGESTIONS

At the end of their studies, most authors offer a few suggestions, subjects for debate or recommendations - ranging from questions to certitudes - which cover a fairly large proportion of the problems dealt with in this document. Certain proposals have been left out (irrespective of their intrinsic interest) because they addressed only the specific problems of a country or of a project, or were restricted to a particular case. Mention has not been made either of the originators of the recommendations that have been mentioned here, simply because their views are widely agreed upon.

Out of roughly 100 explicitly formulated recommendations, more than half are related to the problems posed by the experimental and innovative character of the projects. As regards the strictly financial or economic proposals, they place the emphasis on the use rather than on the diversification of resources.

The suggestions below, which have been grouped together according to their subject matter, are general enough for a debate to take place on the prospects of the financing of education.

7.1 Suggestions concerning experimentation

7.1.1 Project conception

a) Objectives must be realistic for success to be achieved. For instance, productive labour can provide only marginal funding support, and production itself must be adjusted to the

possibilities and needs of the local autonomy.

b) The productive school is first a school and pedagogic objectives must remain paramount. Curricula must take the new approach into account (in terms of content, timetabling, adjustment to the environment).

c) The experiment must conform, from its very start, to the national objectives. In this respect, its integration into an overall education plan should make for success.

d) As far as technological innovations are concerned, radio is a more flexible medium than television, being easier to use and less expensive.

7.1.2 Decision-making.

a) The decision to launch an experiment should always be made in consultation with all the parties concerned.

b) The stability of the administrative machinery is a prerequisite, and some innovations call for a national political commitment at the highest level.

7.1.3 Implementation.

a) (Organization): Prior to implementation, the responsibilities, the resources, the modes of financing must be defined, and links with the administration, local bodies, firms, etc must be established, along with, if possible, an intersectorial coordination .

b) (Training): There is a consensus on the necessity for the staff concerned to receive a good preliminary training. Certain budgetary or management techniques might be integrated into the curricula of training colleges.

c) (Information): The best way to overcome resistance to change is to keep people informed (before, during and after the experimental stage). More and more information about experiments must be exchanged, both nationally and internationally.

d) (Participation): When the community contributes to the funding of the school, it is only fair that it should be involved when an experiment is being carried out.

e) (Decentralization): The mobilization and management of local resources is inseparable from decentralization.

7.4.1 Evaluation.

a) Decentralization may require the introduction of new modes of control and the strengthening of information channels (from the grass-roots up and from the top down).

b) Clear balance sheets which are open and above board can help avoid situations of conflict.

c) An experiment is worthwhile only if it enables one to gather abundant, reliable data.

d) Consequently, computers are often a necessity, even if the project of limited scope, when it comes to collecting and processing statistical and accounting data.

7.2 Modes of financing

7.2.1 Mobilization of resources.

a) Micro-planning makes for easier and more cost-effective mobilization of local resources.

b) Voluntary service and sponsorship are not fully taken advantage of. Well-mounted information campaigns and adequate incentives might broaden their impact.

c) Education could be the prime beneficiary of a form of national community service in areas that would benefit the public as a whole.

d) Back-up finance for investment programmes should take into account the recurrent expenditure it is likely to entail.

7.2.2 Management of resources.

a) (Administrative bodies): Financial management problems, in particular the redirecting of resources, are best tackled by a single Ministry, but the setting up of specific bodies can facilitate non-conventional forms of financing (special development funds, coordination of different types of investment, etc).

- Educational planners should be more widely consulted as regards budgetary choices, long-term management policies and the choice of sites.

b) (Management): A rational scholarship allocation system must be geared to local training possibilities. It must also ensure that students granted scholarships to study abroad do come back and are given jobs in accordance with their training.

- Administrative compartmentalization (vertical or horizontal) is often an obstacle to the smooth running of the educational system.

c) (Efficiency): There is no better way to reduce educational expenditure than by improving internal and external efficiency (better qualified teaching staff, better instructional material, classes of suitable size, well-adapted curricula and courses, etc).

d) (Economies): Savings may be achieved through more frequent use of local raw materials and labour, through a better adaptation of buildings to the environment, a closer collaboration between the various technical departments and a stricter control of local prices.

- Further possibilities of economy: maximum use of premises, classes of suitable size, classes operated on a rota system, multi-level classes.
- Central departments could often curtail their expenses.

7.3 Fields of research

Several documents suggest that the studies on the financing of education should focus on the following points:

- Computation of real costs at the level of each establishment,

- More accurate determination of the financial aid received or given by educational institutions,

- Real impact of tax incentives,

- Multiplication of case studies and wide diffusion of results.

7.4 Queries

The authors of the reports quoted raise certain questions without producing any definite answers:

- Can the growth of educational expenditure be monitored?

- How to channel national savings, when this is possible, into development programmes?

- What criteria would make it possible to determine (in terms of percentage of G.N.P., for instance) the mimimal or optimal resources that would be necessary for the targets of equity, quality and efficiency to be reached?

- What is the best possible distribution of the resources generated by innovation (extension of primary education, of training schemes which contribute to development, etc?

- What are the limits of the right to education?

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10- TUNISIA, Ministry of National Education : "Les sorties de l'enseignement primaire de 1980", Tunis, 1981.

ED/EPP's "REPORTS, STUDIES" WORKING SERIES

Unesco's Division of Educational Policy and Planning (ED/EPP) reproduces selected technical papers in the present "Reports, Studies" working series with the aim to disseminate information and ideas on current issues of interest to educational policy-makers, planners, administrators and school architects. Papers are distributed on request to Unesco programme specialists and to interested technical personnel in governmental and private institutions.

Most of the papers in the series were originally prepared for one of the Division's study projects, meetings or conferences, and have been selected because of their topical interest. The opinions expressed in the papers are those of the author and do not necessarily represent the views or policies of Unesco. The reader should also bear in mind that many of the papers are working documents, unedited, and are not intended for public distribution. Thus, linguistic deficiencies are evident in some papers, due to the fact that the author has written in a language other than his or her mother tongue.

The series includes two general types of papers: (i) those focusing on the education system or some educational problems in a particular country (numbered C.1, C.2, etc.) and (ii) those treating a subject with a broader or indefinite geographical context (numbered S.1, S.2, etc.). The current list of titles, which contains an index by country and by general subject, may be obtained from the address at the bottom of this page. Comments on the series and on particular papers are most welcome.

SERIE DE DOCUMENTS DE TRAVAIL "RAPPORTS, ETUDES" DE ED/EPP

La Division des politiques et de la planification de l'éducation (ED/EPP) de l'Unesco reproduit certains documents techniques dans la série "Rapports, Etudes" afin de diffuser des informations et des idées relatives aux problèmes courants auxquels doivent faire face les décideurs, les planificateurs et les administrateurs de l'éducation ainsi que les architectes scolaires. Ces documents sont distribués sur demande aux spécialistes de l'Unesco et aux cadres techniques intéressés d'institutions gouvernementales et privées.

La plupart des documents de cette série ont été à l'origine préparés pour des programmes d'études de la division, des réunions ou des conférences et ont été sélectionnés en fonction de l'actualité du sujet traité. Les idées exprimées sont celles des auteurs et ne reflètent pas nécessairement les vues et politiques de l'Unesco. Les lecteurs doivent également tenir compte du fait qu'il s'agit souvent de documents de travail inédits qui ne sont pas destinés au public. De plus, certains auteurs ont rédigé leur document dans une langue qui n'est pas la leur, ce qui explique quelques faiblesses linguistiques.

Cette série se divise en deux catégories de documents : (1) ceux qui ont trait au système éducatif, ou à un aspect particulier de l'éducation dans un pays donné (numérotés C.1, C.2, etc.) et (2) ceux qui traitent d'un sujet dans un contexte géographique plus large ou non défini (numérotés S.1, S.2, etc.). La liste actualisée des titres, qui contient un index par pays et par sujets, peut être obtenue à l'adresse ci-dessous. Tout commentaire éventuel sur cette série et sur chacun des documents serait apprécié.

SERIE DE DOCUMENTOS DE TRABAJO "INFORMES, ESTUDIOS" DE ED/EPP

La División de Políticas y de Planificación de la Educación (ED/EPP) de la Unesco está reproduciendo ciertos documentos técnicos en su serie "Informes, Estudios" con el propósito de difundir informaciones e ideas relativas a los problemas cotidianos con que se encuentran los que toman las decisiones, los planificadores y los administradores de la educación así como los arquitectos escolares. Estos documentos se envían por pedido expreso a los especialistas de la Unesco y a los funcionarios técnicos de las instituciones gubernamentales o privadas.

La mayor parte de los documentos de esta serie han sido preparados para estudios de la División, para reuniones o conferencias y se ha procedido a su selección de acuerdo a la actualidad del tema que se analiza. Las ideas expresadas son las de sus autores y no reflejan necesariamente las opiniones y políticas de la Unesco. Los lectores deben tener asimismo en cuenta que se trata a menudo de documentos de trabajo ineditos que no están destinados a un público especializado. Por otra parte, conviene destacar que algunos autores han redactado sus documentos en una lengua de trabajo que no es frecuentemente la suya, hecho que explica algunas carencias lingüísticas.

Esta serie se divide en dos categorías de documentos : (1) los que se refieren al sistema educativo o a un aspecto específico de la educación en un país determinado (que se numeran C.1, C.2, etc.) y (2) los que tratan un tema en un contexto geográfico más amplio y menos definido (llevan la sigla S.1, S.2, etc.). La lista actualizada de títulos, que contiene un índice por países y por temas, se puede obtener en la dirección que aparece a continuación. Todo comentario que los lectores consideren útil para esta serie o en relación a un documento en particular será áltamente apreciado.

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